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(FILE 'HOME' ENTERED AT 09:43:13 ON 03 JUL 2000)  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 09:43:28 ON 03 JUL 2000

E ISOQUERCITRIN/CN  
L1 1 S E3  
E C21H20O12/MF  
L2 9 S E3 AND OC5-C6/ES AND 46.150.18/RID AND OC4/ES  
L3 9 S L2 AND 5 7 AND 4 ONE  
L4 7 S L3 AND 2 3 4  
L5 2 S L4 AND GLUCOFURAN?  
L6 7 S L2 NOT L5  
L7 1 S L6 AND GALACTO?  
SEL RN L5  
L8 3 S E1-E2/CRN

FILE 'HCAOLD' ENTERED AT 09:47:34 ON 03 JUL 2000

L9 0 S L5

FILE 'HCAPLUS' ENTERED AT 09:47:39 ON 03 JUL 2000

L10 646 S L5  
L11 3 S L8  
L12 648 S L10,L11  
L13 1 S L11 AND UV (L) FILTER  
E BUCHHOLZ H/AU  
L14 76 S E3,E4,E12,E13  
E BUECHHOLZ H/AU  
E BEUCHHOLZ H/AU  
E WAGNER A/AU  
L15 303 S E3-E18  
E WAGNER ANNET/AU  
L16 14 S E4-E8  
E KRAUS C/AU  
L17 22 S E3,E9,E10  
E MEDUSKI J/AU  
L18 7 S E5,E6  
L19 0 S L12 AND L14-L18  
L20 8 S L14 AND L15-L18  
L21 1 S L15,L16 AND L17,L18  
L22 1 S L17 AND L18  
L23 1 S L21,L22 AND L20  
L24 700 S ISOQUERCITIN? OR ISOQUERCITRIN? OR ISOQUERCITROSID? OR ISOTRI

FILE 'REGISTRY' ENTERED AT 09:52:36 ON 03 JUL 2000

E ISOQUERCITIN/CN  
E ISOQUERCETIN/CN  
L25 1 S E3  
E C21H20O12/MF  
L26 66 S E3 AND OC5-C6/ES AND 46.150.18/RID AND OC5/ES  
L27 4 S L26 AND 2 3 4 DIHYDROXYPHENYL 3 AND 5 7 DIHYDROXY AND 4 ONE  
L28 4 S L25,L27  
SEL RN  
L29 61 S E1-E4/CRN

FILE 'HCAPLUS' ENTERED AT 09:54:31 ON 03 JUL 2000

L30 1965 S L28  
L31 287 S L29  
L32 5 S L14-L18 AND L30,L31  
L33 5 S L23,L32  
L34 4 S L20-L23 NOT L33  
L35 9 S L33,L34  
L36 1 S L35 AND (?VIRAL? OR ?VIRUS? OR ?VIRUC? OR ?HERPE?)  
L37 1 S L35 AND (UV OR ULTRAVIOL? OR ULTRA VIOL?)  
L38 1 S L36,L37

Point of Contact:  
Jan Delaval  
Librarian-Physical Sciences  
CM1 1E01 Tel: 308-4498

L39 2 S L13,L38  
L40 1 S L35 AND LIGHT  
L41 2 S L38-L40  
L42 8 S L35 NOT L41

FILE 'REGISTRY' ENTERED AT 10:10:39 ON 03 JUL 2000

E BENZOPHENONE/CN  
L43 1 S E3  
E BENZOYLMETHANE/CN  
E DIBENZOYLMETHANE/CN  
L44 1 S E3  
E CINNAMIC ACID/CN  
L45 1 S E3  
E ISOAMYL METHOXYCINNAMATE/CN  
L46 1 S 71617-10-2  
E C15H20O3/MF  
L47 1 S E3 AND 46.150.18/RID AND 1/NR AND 2 PROPENOIC AND 3 METHOXYPH  
L48 11 S E3 AND 46.150.18/RID AND 1/NR AND 2 PROPENOIC AND METHOXYPHEN  
L49 6 S L48 NOT METHOXYPHENYL 2 METHYL  
L50 1 S 5466-77-3  
E C18H26O3/MF  
L51 11 S E3 AND 46.150.18/RID AND 2 PROPENOIC AND METHOXYPHENYL AND 3  
L52 1 S 15087-24-8  
L53 1 S 150-13-0  
L54 1 S 6197-30-4  
L55 1 S 1314-13-2  
L56 1 S 13463-67-7  
L57 1 S 15176-29-1  
E C11H16N2O5/MF  
L58 21 S E3 AND NCNC3/ES AND OC4/ES AND URIDIN?  
L59 5 S L58 AND DEOXY 5 ETHYL  
L60 1 S 117-39-5  
L61 1 S 548-83-4  
L62 1 S 520-18-3  
E PROPOLIS/CN  
L63 1 S E4  
L64 1 S 480-40-0  
L65 1 S 520-36-5  
L66 1 S 491-70-3  
L67 1 S 529-44-2  
L68 1 S 480-44-4  
L69 1 S 552-58-9  
E C15H12O6/MF  
L70 4 S E3 AND 46.150.18/RID AND OC5-C6/ES AND 4 ONE AND 3 4 DIHYDROX  
L71 3 S L70 AND 2 3 4  
L72 1 S 480-19-3  
L73 3 S 50-81-7 OR 10504-35-5 OR 62624-30-0  
L74 1 S 522-12-3  
E CATECHOL/CN  
L75 2 S E3  
L76 1 S L75 AND 3/NR  
L77 1 S 520-33-2  
E C16H14O6/MF  
L78 93 S E3 AND 46.150.18/RID AND OC5-C6/ES  
L79 5 S L78 AND 4 ONE AND 2 3 DIHYDRO AND 5 7 DIHYDROXY AND 2 3 HYDRO  
L80 3 S L79 NOT 14C?  
L81 1 S 153-18-4  
L82 25 S L43-L47,L49-L56  
L83 23 S L57,L60-L69,L71-L74,L76,L77,L80,L81

FILE 'HCAPLUS' ENTERED AT 10:27:22 ON 03 JUL 2000

L84 147066 S L82  
L85 53877 S L83  
L86 2579 S L12,L24,L30,L31  
L87 25 S L86 AND L84  
L88 1867 S L86 AND L85

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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Now you can extend your author, patent assignee, patent agent, and title searches back to 1907. The records from 1907 to 1966 are available in this searchable data in CAOLD. You now have electronic access to the records of CA: 1907 to 1966 in CAOLD and 1967 to the present in CA.

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L107 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2000 ACS
AN 2000:314555 HCAPLUS
DN 132:326034
TI Compositions comprising a mixture of bioflavonols
IN Buchholz, Herwig; Meduski, Jerzy
PA Merck Patent G.m.b.H., Germany
SO PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DT Patent
LA English
IC A61K031-70; A61K031-70; A61K031-70
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 17
FAN.CNT 1
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2000025795 A1 20000511 WO 1999-EP7865 19991016  
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,  
DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,  
JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,  
MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,  
TM, TR, TT  
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
PRAI EP 1999-105035 19990322  
AB The present invention relates to novel compns. contg. a mixt. of two or  
three bioflavonols like isoquercetin, quercetin-4'-glycoside, rutin and  
quercetin, which show differences in their pharmacokinetics. These  
compns. are useful as food supplements possessing preventive properties  
against damage to human tissues due to their antioxidant properties.  
Furthermore, these compns. secure a continuum of the presence of  
bioflavonols having the same aglycon in human plasma over an extended  
period of time. A compn. contained 400 mg rutin and 100 mg isoquercetin.  
ST bioflavonol compn antioxidant  
IT Flavonoids  
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological  
study); USES (Uses)  
(bioflavonoids; bioflavonol antioxidant compn.)  
IT Nutrition, animal  
(bioflavonol antioxidant compn.)  
IT Flavones  
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological  
study); USES (Uses)  
(hydroxy; bioflavonol antioxidant compn.)  
IT Antioxidants  
(pharmaceutical; bioflavonol antioxidant compn.)  
IT 117-39-5, Quercetin 153-18-4, Rutin 482-35-9,  
Isoquercetin 20229-56-5, Quercetin 4'-glucoside  
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological  
study); USES (Uses)  
(bioflavonol antioxidant compn.)

RE.CNT 10

RE

- (1) Derwent Publications Ltd; DATABASE WPI
- (2) Derwent Publications Ltd; DATABASE WPI
- (3) Derwent Publications Ltd; DATABASE WPI
- (4) Hollmann, P; CANCER LETTERS 1997, V114, P139
- (5) Hollmann, P; FEBS LETTERS 1997, V418, P152
- (6) Kato, K; JP 06199693 A 1994
- (7) Kato, K; JP 06199697 A 1994
- (8) Merck Patent GmbH; WO 9944578 A 1999
- (9) San-Ei Chem Ind Ltd; JP 04099771 A 1992
- (10) Wagner, H; GUSTAV FISCHER VERLAG 1985

L107 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2000 ACS

AN 2000:314527 HCAPLUS

DN 132:326078

TI Compositions for the treatment and prevention of cardiovascular diseases

IN Buchholz, Herwig; Meduski, Jerzy D.

PA Merck Patent G.m.b.H., Germany

SO PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K031-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 17

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000025764	A2	20000511	WO 1999-EP7689	19991013



W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,  
 DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,  
 JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,  
 MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,  
 TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,  
 MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-106205 19981030

AB Compns. comprising one or more active ingredients and, optionally, one or more nutritional substances, solid, liq. and/or semiliquid excipients or auxiliaries, wherein the active ingredients consist of a) a consisting of one or more compds. selected from Me and methylene donors, b) a consisting of one or more Me transporters, and c) a consisting of one or more bioflavonoids are well-suited for the treatment and prevention of transmethylation disorders, preferably cardiovascular diseases such as atherogenic and thrombogenic diseases. A compn. was prepd. contg. betaine 600, Ca L-5-methyltetrahydrofolate 0.5, and isoquercetin 500 mg.

ST cardiovascular disease pharmaceutical; methyl transporter cardiovascular disease pharmaceutical; bioflavonoid cardiovascular disease pharmaceutical

IT Flavonoids

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bioflavonoids; compns. for treatment and prevention of cardiovascular diseases)

IT Cardiovascular agents

Nutrients

(compns. for treatment and prevention of cardiovascular diseases)

IT Drug delivery systems

(tablets; compns. for treatment and prevention of cardiovascular diseases)

IT Methylation

(transmethylation, biol., disorders; compns. for treatment and prevention of cardiovascular diseases)

IT 56-45-1, L-Serine, biological studies 58-05-9 107-43-7, Betaine 107-97-1, Sarcosine 117-39-5, Quercetin 134-35-0, 5-Methyltetrahydrofolic acid 153-18-4, Rutin 482-35-9, Isoquercetin 482-36-0, Hyperin 491-50-9, Quercimeritrin 1118-68-9, Dimethylglycine 2800-34-2, 10-Formyltetrahydrofolate 3432-99-3 10360-12-0 20229-56-5, Spiraeosid 139418-88-5, L-Glutamic acid, N-[4-[[[2-amino-1,4,5,6,7,8-hexahydro-5-methyl-4-oxo-6-pteridiny]methyl]amino]benzoyl]-, calcium salt

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (compns. for treatment and prevention of cardiovascular diseases)

L107 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2000 ACS

AN 2000:289127 HCAPLUS

DN 132:307347

TI Procedure for enzymic splitting of rutinoides

IN Buchholz, Herwig; Koppe, Thomas; Schleeahn, Michael

PA Merck Patent G.m.b.H., Germany

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C12P019-02

ICS C07H003-02

CC 16-2 (Fermentation and Bioindustrial Chemistry)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19850029	A1	20000504	DE 1998-19850029	19981030
	WO 2000026400	A1	20000511	WO 1999-EP7686	19991013

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,  
 DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,  
 JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,

MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,  
 TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,  
 MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI DE 1998-19850029 19981030

OS MARPAT 132:307347

AB A procedure for the enzymic hydrolysis of rutinoides for the prodn. of rhamnose and/or their corresponding glucopyranosides is described, which is carried out in a solvent mixt. of water and one or several org. solvents.

ST rhamnose prodn rutin hydrolysis enzyme

IT 3615-41-6P, Rhamnose

RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation) (enzymic hydrolysis of rutinoides for the prodn. of rhamnose and their corresponding glucopyranosides)

IT 153-18-4, Rutin 604-80-8 17650-84-9

RL: BPR (Biological process); RCT (Reactant); BIOL (Biological study); PROC (Process)

(enzymic hydrolysis of rutinoides for the prodn. of rhamnose and their corresponding glucopyranosides)

IT 64-17-5, Ethanol, biological studies 67-56-1, Methanol, biological studies 79-20-9, Methyl acetate 108-88-3, Toluene, biological studies 1634-04-4, Methyl tert-butyl ether

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(enzymic hydrolysis of rutinoides for the prodn. of rhamnose and their corresponding glucopyranosides)

IT 480-10-4P 482-35-9P, Isoquercetin 5041-82-7P,

4H-1-Benzopyran-4-one, 3-(.beta.-D-glucopyranosyloxy)-5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-

RL: BYP (Byproduct); PREP (Preparation)

(enzymic hydrolysis of rutinoides for the prodn. of rhamnose and their corresponding glucopyranosides)

IT 9068-31-9, Naringinase 37213-47-1, Hesperidinase

RL: CAT (Catalyst use); USES (Uses)

(enzymic hydrolysis of rutinoides for the prodn. of rhamnose and their corresponding glucopyranosides)

L107 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2000 ACS

AN 2000:161129 HCAPLUS

DN 132:199077

TI Ascorbate-isoquercetin compositions

IN Buchholz, Herwig; Meduski, Jerzy

PA Merck Patent GmbH, Germany

SO PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K031-35

ICS A61K031-375; A23L001-302; A23L001-30

CC 63-6 (Pharmaceuticals)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000012085	A1	20000309	WO 1999-EP6166	19990823

W: JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRAI US 1998-141781 19980827

AB The present invention relates to novel compns. contg. ascorbic acid and one or more derivates of quercetin which orally administered conveys in vivo higher protection, longer maintenance of biol. activity, higher concn. in tissues and higher biol. efficiency to vitamin C in organs in

human body. These compns. are useful as pharmaceutical compns. and as food supplements possessing preventive properties against damages of human organs, including skin, tissues and cells due to oxidative stress or damages.

ST ascorbate isoquercetin pharmaceutical

IT Drug delivery systems

(oral; ascorbate-isoquercetin compns.)

IT Antioxidants

(pharmaceutical; ascorbate-isoquercetin compns.)

IT 7439-89-6D, Iron, salts 7439-95-4D, Magnesium, salts 7440-09-7D, Potassium, salts 7440-70-2D, Calcium, salts

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ascorbate-isoquercetin compns.)

IT 50-81-7, Ascorbic acid, biological studies 117-39-5D,

Quercetin, derivs. 482-35-9, Isoquercetin 491-50-9 19254-30-9, Quercetin 3'-glucoside 20229-56-5, Quercetin 4'-glucoside

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ascorbate-isoquercetin compns.)

RE.CNT 9

RE

(1) Eckes-Granini GmbH & Co; DE 19820680 C 1999

(2) Ito, M; JP 07196523 A 1995

(3) Ito, M; JP 09030987 A 1997

(4) Kato, K; JP 06199690 A 1994

(5) Kato, K; JP 06199693 A 1994

(6) Noroozi, M; AMERICAN JOURNAL OF CLINICAL NUTRITION 1998, V67, P1210 HCAPLUS

(7) San Ei Chem Ind Ltd; JP 04099771 A 1992

(8) Seto, T; CHEM PHARM BULL 1992, V40(8), P2080 HCAPLUS

(9) Vrijksen, R; JOURNAL OF GENERAL VIROLOGY 1988, V69, P1749 HCAPLUS

L107 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2000 ACS

AN 2000:133277 HCAPLUS

DN 132:171127

TI Use of combinations of flavonoids and UV filters as antiviral agents

IN Wolf, Florian; Traupe, Bernd; Untiedt, Sven; Staeb, Franz

PA Beiersdorf Aktiengesellschaft, Germany

SO Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM A61K007-42

ICS A61K007-48; A61K031-35; A61K031-125; A61K031-215; A61K031-53; A61K031-12; A61K031-19

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 62

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 980684	A2	20000223	EP 1999-115802	19990811 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19837758	A1	20000224	DE 1998-19837758	19980820 <--
PRAI DE 1998-19837758		19980820 <--		

AB Cosmetic or dermatol. preps. contg. a combination of flavonoids and UV filter substances ameliorate the course of viral infections, esp. shingles and herpes labialis.

Thus, a lipstick contained iso-Pr lanolate 10.00, acetylated lanolin 4.00, bleached beeswax 9.00, carnauba wax 4.00, petrolatum 40.00, .alpha.-glucosylrutin 0.50, tocopheryl acetate 0.10, octyl methoxycinnamate 2.50, butylmethoxydibenzoylmethane 1.00, methylbenzylidenecamphor 1.00, TiO<sub>2</sub> 1.00, pigments and dyes, and paraffin oil to 100.00 wt.%.  
flavonoid UV filter virucide; sunscreen  
flavonoid herpesvirus inhibition

ST flavonoid UV filter virucide; sunscreen

flavonoid herpesvirus inhibition

XXX  
103  
OWN

IT Optical filters  
(UV; use of combinations of flavonoids and UV filters as antiviral agents)

IT Flavonoids  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(oxo dihydro; use of combinations of flavonoids and UV filters as antiviral agents)

IT Antiviral agents  
Human herpesvirus 1  
Human herpesvirus 3  
Sunscreens  
(use of combinations of flavonoids and UV filters as antiviral agents)

IT Flavones  
Flavonoids  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(use of combinations of flavonoids and UV filters as antiviral agents)

IT 60-81-1, Phlorizin 69-72-7D, Salicylic acid, esters 117-39-5, Quercetin 118-56-9, Homomenthyl salicylate 118-60-5, 2-Ethylhexyl salicylate 119-61-9D, Benzophenone, derivs. 120-46-7D, Dibenzoylmethane, derivs. 131-53-3, 2,2'-Dihydroxy-4-methoxybenzophenone 131-57-7, 2-Hydroxy-4-methoxybenzophenone 150-13-0D, 4-Aminobenzoic acid, derivs. 153-18-4, Rutin 290-87-9D, 1,3,5-Triazine, derivs. 480-16-0, Morin 480-40-0, Chrysin 489-35-0, Gossypetin 490-31-3, Robinetin 491-70-3, Luteolin 520-18-3, Kaempferol 520-26-3, Hesperidin 520-27-4, Diosmin 520-36-5, Apigenin 525-82-6, Flavone 528-48-3, Fisetin 529-44-2, Myricetin 548-83-4, Galangin 577-85-5, Flavonol 584-45-2D, Benzalmalonic acid, esters 621-82-9D, Cinnamic acid, esters 1641-17-4, 2-Hydroxy-4-methoxy-4'-methylbenzophenone 5466-77-3, 2-Ethylhexyl 4-methoxycinnamate 5997-53-5, 2-Phenylbenzimidazole-5-sulfonic acid sodium salt 6197-30-4, 2-Ethylhexyl 2-cyano-3,3-diphenylacrylate 7085-55-4, Troxerutin 10020-01-6 10236-47-2, Naringin 14779-78-3, Amyl 4-(dimethylamino)benzoate 15087-24-8, 3-Benzylidenecamphor 15087-24-8D, 3-Benzylidenecamphor, derivs. 20702-77-6, Neohesperidin dihydrochalcone 21245-02-3, 2-Ethylhexyl 4-(dimethylamino)benzoate 23869-24-1, Monoxerutin 27503-81-7, 2-Phenylbenzimidazole-5-sulfonic acid 36861-47-9, 3-(4-Methylbenzylidene)camphor 54472-82-1 56039-58-8 63250-25-9 70356-09-1 71617-10-2, Isopentyl 4-methoxycinnamate 94134-93-7, 4-Isopropylbenzyl salicylate 130603-71-3, .alpha.-Glucosylrutin 158099-19-5 186202-95-9 189183-15-1 221904-13-8 221904-25-2 259143-65-2  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(use of combinations of flavonoids and UV filters as antiviral agents)

L107 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2000 ACS  
AN 1999:576753 HCAPLUS  
DN 131:219169  
TI Cosmetic or pharmaceutical formulations containing isoquercetin with antiviral activity  
IN Buchholz, Herwig; Kraus, Christine; Wagner, Annette; Meduski, Jerzy  
PA Merck Patent G.m.bH., Germany  
SO PCT Int. Appl., 23 pp.  
CODEN: PIXXD2  
DT Patent  
LA German  
IC ICM A61K007-42  
ICS A61K031-35

← "false" hit  
- See end page 12

1029 ?

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9944578	A1	19990910	WO 1999-EP1104	19990220 <--
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19809304	A1	19990909	DE 1998-19809304	19980305 <--
PRAI	DE 1998-19809304		19980305		<--
AB	Solid or liq. <b>formulations</b> contain isoquercetin as a natural flavonoid. The isoquercetin is contained as a <b>light</b> protection filter and/or an <b>antiviral</b> substance. The invention relates to both cosmetic and pharmaceutical <b>formulations</b> . Thus, a lipstick contained isoquercetin 0.1, Cremophor A-25 20.0, Cetiol HE 22.0, glycerin 5.0, preservative q.s., and water to 100% by wt.				
ST	isoquercetin <b>antiviral</b> pharmaceutical cosmetic; sunscreen				
IT	Optical filters				
	(UV; cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Drug delivery systems				
	(capsules; cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	<b>Antiviral</b> agents				
	Cosmetics				
	Human <b>herpesvirus</b>				
	Mouthwashes				
	Propolis				
	Sunscreens				
	(cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Carotenes, biological studies				
	Glycosides				
	Vitamins				
	RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
	(cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Cosmetics				
	(creams; cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Drug delivery systems				
	(dragees; cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Cosmetics				
	(emulsions; cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Drug delivery systems				
	(gels; cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Drug delivery systems				
	(inhalants; cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Cosmetics				
	(lipsticks; cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Drug delivery systems				
	(liqs.; cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Cosmetics				
	Drug delivery systems				
	(lotions; cosmetic or pharmaceutical <b>formulations</b> contg. isoquercetin with <b>antiviral</b> activity)				
IT	Drug delivery systems				

(nasal sprays; cosmetic or pharmaceutical **formulations** contg. isoquercetin with **antiviral** activity)

IT Drug delivery systems  
(ointments, creams; cosmetic or pharmaceutical **formulations** contg. isoquercetin with **antiviral** activity)

IT Drug delivery systems  
(ointments; cosmetic or pharmaceutical **formulations** contg. isoquercetin with **antiviral** activity)

IT Drug delivery systems  
(solids; cosmetic or pharmaceutical **formulations** contg. isoquercetin with **antiviral** activity)

IT Drug delivery systems  
(sprays; cosmetic or pharmaceutical **formulations** contg. isoquercetin with **antiviral** activity)

IT Cosmetics  
(sticks; cosmetic or pharmaceutical **formulations** contg. isoquercetin with **antiviral** activity)

IT Drug delivery systems  
(syrups; cosmetic or pharmaceutical **formulations** contg. isoquercetin with **antiviral** activity)

IT Drug delivery systems  
(tablets; cosmetic or pharmaceutical **formulations** contg. isoquercetin with **antiviral** activity)

IT 50-81-7, L-Ascorbic acid, biological studies 119-61-9, Benzophenone, biological studies 621-82-9D, Cinnamic acid, esters 1314-13-2, Zinc oxide (ZnO), biological studies 5466-77-3, Eusolex 2292 6197-30-4, Eusolex OCR 13463-67-7, Titanium oxide, biological studies 15087-24-8, Eusolex 6900 18733-07-8, Eusolex 4360 21245-02-3, Eusolex 6007 71617-10-2, Isoamyl p-methoxycinnamate 88122-99-0, Uvinul T 150  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(cosmetic or pharmaceutical **formulations** contg. isoquercetin with **antiviral** activity)

IT 117-39-5, Quercetin 153-18-4, Rutin 154-23-4, Catechin 480-19-3, Isorhamnetin 480-40-0, Chrysin 480-44-4, Acacetin 482-35-9, Isoquercetin 491-70-3, Luteolin 520-18-3, Kaempferol 520-33-2, Hesperitin 520-36-5, Apigenin 522-12-3, Quercitrin 529-44-2, Myricetin 548-83-4, Galangin 552-58-9, Eriodictyol 15176-29-1, 5-Ethyldeoxyuridine 63250-25-9, Eusolex 8020 112725-59-4, Eusolex 9020  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(cosmetic or pharmaceutical **formulations** contg. isoquercetin with **antiviral** activity)

RE.CNT 11

RE

- (1) Anon; 1994, 7, HCAPLUS
- (2) Anon; 1994, 7, HCAPLUS
- (3) Anon; 1994, 21, HCAPLUS
- (4) Bean, S; US 4132782 A 1979
- (5) Kanebo; JP 60-208908 A 1985
- (6) Merck; DE 19508608 A 1995
- (7) Ruibosutei; JP 05-271088 A 1993
- (8) Ruibosutei; JP 05-271090 A 1993
- (9) Thorel, J; FR 2723316 A 1996
- (10) WPI; AN 85300541
- (11) Yunie, K; JP 06-199697 A 1994

L107 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:393086 HCAPLUS

DN 131:35660

TI Use of flavones and flavonoids to stabilize dibenzoylmethanes against UV-induced decomposition

IN Scheel, Oliver; Gers-Barlag, Heinrich

PA Beiersdorf A.-G., Germany  
 SO Ger. Offen., 14 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC ICM A61K007-44  
 CC 62-4 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19755504	A1	19990617	DE 1997-19755504	19971213 <--
	US 5952391	A	19990914	US 1998-205435	19981204 <--
PRAI	DE 1997-19755504		19971213	<--	
OS	MARPAT 181:35660				
AB	Dibenzoylmethane-type UV filter compds. in sunscreen formulations are stabilized against UV-induced Norrish type I deacylation by addn. of flavones or flavonoids. Thus, a water-in-oil sunscreen lotion contained polyglyceryl-2 polyhydroxystearate 3.50, polyglyceryl-3 diisostearate 3.50, butylene glycol 5.00, ceresin 3.00, 45% NaOH 0.35, C12-15-alkyl benzoates 10.00, quercetin 2.00, 4-tert-butyl-4'-methoxydibenzoylmethane 1.00, Eusolex 232 2.00, Miglyol 812 6.00, Vaseline 2.00, preservative, perfume, and demineralized water to 100.00 wt.%. ST sunscreen dibenzoylmethane UV stabilizer flavone; benzoylmethane UV stabilizer flavonoid sunscreen IT Sunscreens UV stabilizers (use of flavones and flavonoids to stabilize dibenzoylmethanes against UV-induced decompn.) IT Flavones Flavonoids RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (use of flavones and flavonoids to stabilize dibenzoylmethanes against UV-induced decompn.) IT 117-39-5, Quercetin 120-46-7D, Dibenzoylmethane, derivs. 153-18-4, Rutin 480-18-2, Taxifolin 482-35-9, Isoquercetin 489-35-0, Gossypetin 490-31-3, Robinetin 491-70-3, Luteolin 528-48-3, Fisetin 529-44-2, Myricetin 4382-33-6, Dihydro-robinetin 7085-55-4, Troxerutin 23869-24-1, Monoxerutin 38965-51-4, Eriodictyol 7-glucoside 63250-25-9, 4-Isopropyl-dibenzoylmethane 70356-09-1, 4-(tert-Butyl)-4'-methoxydibenzoylmethane RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (use of flavones and flavonoids to stabilize dibenzoylmethanes against UV-induced decompn.)				

RE.CNT 1

RE

(1) Anon; DE 4227806 A1 HCAPLUS

=> sel hit rn 1107  
 E1 THROUGH E29 ASSIGNED

=> fil reg  
 FILE 'REGISTRY' ENTERED AT 10:45:36 ON 03 JUL 2000  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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 COPYRIGHT (C) 2000 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 2 JUL 2000 HIGHEST RN 274249-26-2  
 DICTIONARY FILE UPDATES: 2 JUL 2000 HIGHEST RN 274249-26-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 11, 2000

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

=> d ide can tot

L109 ANSWER 1 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **259143-65-2** REGISTRY

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(.beta.-D-glucofuranosyloxy)-5,7-dihydroxy-, mono-.alpha.-D-glucopyranoside (9CI)  
(CA INDEX NAME)

FS STEREOSEARCH

MF C27 H30 O17

CI IDS

SR CA

LC STN Files: CA, CAPLUS, TOXLIT

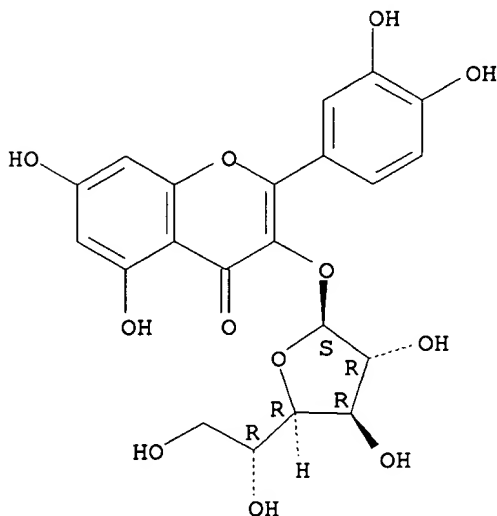
CM 1

CRN 21637-25-2

CMF C21 H20 O12

*hit mgs from  
rep 1-7, L109*

Absolute stereochemistry.

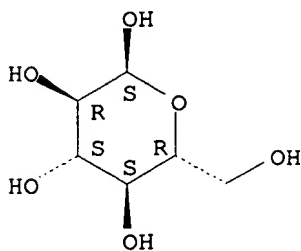


CM 2

CRN 492-62-6

CMF C6 H12 O6

Absolute stereochemistry. Rotation (+).





1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:171127

L109 ANSWER 2 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **71617-10-2** REGISTRY

CN 2-Propenoic acid, 3-(4-methoxyphenyl)-, 3-methylbutyl ester (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 4-Methoxycinnamic acid isoamyl ester

CN Isoamyl 4-methoxycinnamate

CN Isoamyl p-methoxycinnamate

CN Isopentyl 4-methoxycinnamate

CN Neo Heliopan 1000

CN Neo Heliopan E 1000

FS 3D CONCORD

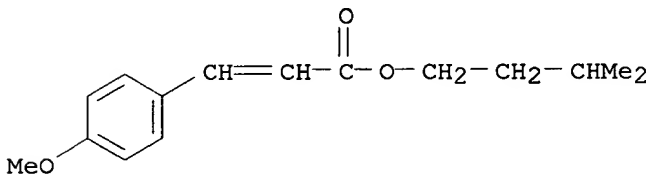
MF C15 H20 O3

LC STN Files: BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CHEMLIST, CIN, CSCHEM, EMBASE, IPA, MEDLINE, NIOSHTIC, PROMT, RTECS\*, TOXLINE, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



42 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
42 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:8879

REFERENCE 2: 132:313327

REFERENCE 3: 132:185251

REFERENCE 4: 132:171127

REFERENCE 5: 132:15491

REFERENCE 6: 131:341791

REFERENCE 7: 131:314089

REFERENCE 8: 131:307843

REFERENCE 9: 131:276799

REFERENCE 10: 131:219169

L109 ANSWER 3 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **15176-29-1** REGISTRY

CN Uridine, 2'-deoxy-5-ethyl- (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN .beta.-5-Ethyl-2'-deoxyuridine

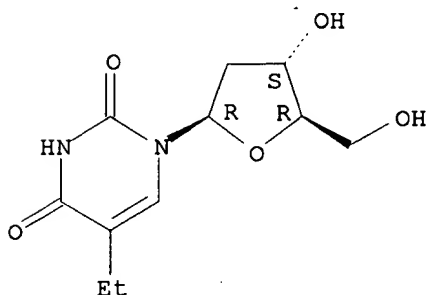
CN .beta.-5-Ethyldeoxyuridine

CN 2'-Deoxy-5-ethyluridine

CN 5-Ethyl-1-(2'-deoxy-.beta.-D-ribofuranosyl)uracil

CN 5-Ethyl-2'-deoxyuridine  
 CN 5-Ethyldeoxyuridine  
 CN Aedurid  
 CN Edoxudine  
 CN EDU  
 CN Epoxudine  
 FS STEREOSEARCH  
 DR 46895-01-6  
 MF C11 H16 N2 O5  
 CI COM  
 LC STN Files: ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,  
 CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHM, DDFU,  
 DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, NAPRALERT,  
 PHAR, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USAN, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*, WHO  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



247 REFERENCES IN FILE CA (1967 TO DATE)  
 16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 247 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:202665  
 REFERENCE 2: 132:102168  
 REFERENCE 3: 132:20176  
 REFERENCE 4: 132:199  
 REFERENCE 5: 131:281141  
 REFERENCE 6: 131:219169  
 REFERENCE 7: 131:170572  
 REFERENCE 8: 131:55871  
 REFERENCE 9: 130:332275  
 REFERENCE 10: 130:308444

L109 ANSWER 4 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 15087-24-8 REGISTRY

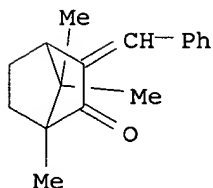
CN Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-3-(phenylmethylene)- (9CI)  
 (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Bornanone, 3-benzylidene- (8CI)

OTHER NAMES:

CN 3-Benzylidenebornan-2-one  
 CN 3-Benzylidenecamphor  
 CN Benzylidenecamphor  
 CN Eusolex 6900  
 CN Ultracyd  
 CN Ultren BK  
 DR 36065-10-8  
 MF C17 H20 O  
 CI COM  
 LC STN Files: BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CHEMCATS,  
 CHEMINFORMRX, CHEMLIST, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA,  
 SPECINFO, TOXLINE, TOXLIT, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



81 REFERENCES IN FILE CA (1967 TO DATE)  
 26 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 81 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:227166  
 REFERENCE 2: 132:212523  
 REFERENCE 3: 132:171127  
 REFERENCE 4: 132:170875  
 REFERENCE 5: 132:156549  
 REFERENCE 6: 132:141697  
 REFERENCE 7: 132:127474  
 REFERENCE 8: 132:15491  
 REFERENCE 9: 131:276808  
 REFERENCE 10: 131:276799

L109 ANSWER 5 OF 29 REGISTRY COPYRIGHT 2000 ACS  
 RN **13463-67-7** REGISTRY  
 CN Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 1385RN59  
 CN 500HD  
 CN 63B1 White  
 CN A 100  
 CN A 200  
 CN A 200 (pigment)  
 CN A-Fil Cream  
 CN A-FN 3  
 CN Aerosil P 25  
 CN Aerosil P 25S6  
 CN Aerosil P 27  
 CN Aerosil T 805

CN AF-E 3D  
CN AK 15  
CN AK 15 (pigment)  
CN Amperit 780.0  
CN AMT 100  
CN AMT 600  
CN Austiox R-CR 3  
CN B 101  
CN B 101 (pigment)  
CN Bayer R-FD 1  
CN Bayertitan A  
CN Bayertitan AN 3  
CN Bayertitan R-FD 1  
CN Bayertitan R-FK 21  
CN Bayertitan R-FK-D  
CN Bayertitan R-KB 2  
CN Bayertitan R-KB 4  
CN Bayertitan R-KB 5  
CN Bayertitan R-U 2  
CN Bayertitan R-U-F  
CN Bayertitan R-V-SE 20  
CN Bayertitan T  
CN BR 29-7-2  
CN C.I. 77891  
CN C.I. Pigment White 6  
CN Cab-O-Ti  
CN CG-T  
CN CL 310  
CN CR 50  
CN CR 58  
CN CR 60  
CN CR 60-2  
CN CR 63  
CN CR 63 (pigment)  
CN CR 80  
CN CR 800PG  
CN CR 90  
CN CR 93

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for  
DISPLAY

AR 51745-87-0  
DR 12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1309-63-3, 1344-29-2,  
55068-84-3, 55068-85-4, 62338-64-1, 101239-53-6, 98084-96-9, 37230-92-5,  
37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7,  
116788-85-3, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1,  
195740-11-5, 224963-00-2

MF O2 Ti

CI COM

LC STN Files: AGRICOLA, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2,  
BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT,  
CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHM,  
CSNB, DDFU, DETHERM\*, DIPPR\*, DRUGU, EMBASE, HSDB\*, IFICDB, IFIPAT,  
IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PIRA, PROMT,  
RTECS\*, TOXLINE, TOXLIT, TULSA, ULIDAT, USAN, USPATFULL, VTB  
(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

O=Ti=O

84350 REFERENCES IN FILE CA (1967 TO DATE)

1216 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

84476 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:26268  
 REFERENCE 2: 133:26018  
 REFERENCE 3: 133:25976  
 REFERENCE 4: 133:25970  
 REFERENCE 5: 133:25829  
 REFERENCE 6: 133:25493  
 REFERENCE 7: 133:25423  
 REFERENCE 8: 133:25081  
 REFERENCE 9: 133:24978  
 REFERENCE 10: 133:24976

L109 ANSWER 6 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 6197-30-4 REGISTRY

CN 2-Propenoic acid, 2-cyano-3,3-diphenyl-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acrylic acid, 2-cyano-3,3-diphenyl-, 2-ethylhexyl ester (7CI, 8CI)

OTHER NAMES:

CN 2'-Ethylhexyl 2-cyano-3-phenylcinnamate

CN 2-Ethylhexyl .alpha.-cyano-.beta.,.beta.'-diphenylacrylate

CN 2-Ethylhexyl .alpha.-cyano-.beta.-phenylcinnamate

CN 2-Ethylhexyl 2-cyano-3,3-diphenyl-2-propenoate

CN 2-Ethylhexyl 2-cyano-3,3-diphenylacrylate

CN Agent AT 539

CN Eusolex OCR

CN Octocrilene

CN Octocrylene

CN Sanduvor 3039

CN Uvinul 3039

CN Uvinul N 539

CN Viosorb 930

FS 3D CONCORD

DR 80135-31-5, 149984-83-8

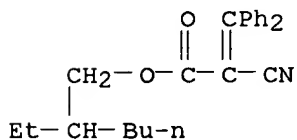
MF C24 H27 N O2

CI COM

LC STN Files: BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, PROMT, TOXLINE, TOXLIT, USAN, USPATFULL

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*, WHO

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



282 REFERENCES IN FILE CA (1967 TO DATE)

283 REFERENCES IN FILE CAPLUS (1967 TO DATE)

3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:18503

REFERENCE 2: 133:10845  
 REFERENCE 3: 132:348690  
 REFERENCE 4: 132:339066  
 REFERENCE 5: 132:339056  
 REFERENCE 6: 132:269842  
 REFERENCE 7: 132:266544  
 REFERENCE 8: 132:229304  
 REFERENCE 9: 132:214848  
 REFERENCE 10: 132:211569

L109 ANSWER 7 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **5466-77-3** REGISTRY

CN 2-Propenoic acid, 3-(4-methoxyphenyl)-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)

OTHER NAMES:

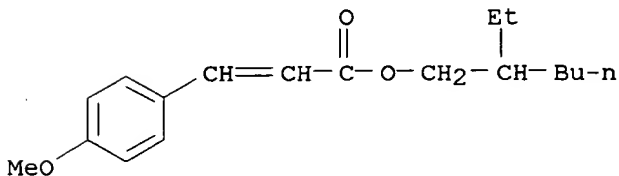
CN 2-Ethylhexyl 4-methoxycinnamate  
 CN 2-Ethylhexyl p-methoxycinnamate  
 CN Escalol 557  
 CN Ethylhexyl p-methoxycinnamate  
 CN Eusolex 2292  
 CN Neo Heliopan AV  
 CN Octyl 4-methoxycinnamate  
 CN Octyl p-methoxycinnamate  
 CN p-Methoxycinnamic acid 2-ethylhexyl ester  
 CN Parsol MCX  
 CN Parsol MCX-SA  
 CN Sunscreen AV  
 CN Uvinul 3088  
 FS 3D CONCORD  
 DR 155867-04-2  
 MF C18 H26 O3  
 CI COM

LC STN Files: ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, PROMT, SPECINFO, TOXLINE, TOXLIT, ULIDAT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



635 REFERENCES IN FILE CA (1967 TO DATE)

6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

639 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:22170  
 REFERENCE 2: 133:22138

REFERENCE 3: 133:22137  
REFERENCE 4: 133:8879  
REFERENCE 5: 132:352526  
REFERENCE 6: 132:349681  
REFERENCE 7: 132:339084  
REFERENCE 8: 132:339056  
REFERENCE 9: 132:313315  
REFERENCE 10: 132:283927

L109 ANSWER 8 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **1314-13-2** REGISTRY

CN Zinc oxide (ZnO) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 23K  
CN 23K (metal oxide)  
CN 503R  
CN Actox 14  
CN Actox 16  
CN Actox 216  
CN AEE-Zn 601  
CN Amalox  
CN AZ-SW  
CN AZO  
CN AZO 22  
CN AZO 55  
CN AZO 66  
CN AZO 77  
CN Azo-B  
CN Azodox  
CN Biocide 3000D  
CN BTs 1  
CN BTs 1 (pigment)  
CN C 30  
CN C 30 (oxide)  
CN Conductive Zinc Oxide No. 1  
CN Electrox 2500  
CN Elma 21  
CN Elma 215  
CN F 60  
CN F 60 (antimicrobial)  
CN FC-MI-W  
CN Finex 25  
CN Finex 50  
CN Finex 75  
CN FINX 75  
CN Flowers of zinc  
CN FO 1020A  
CN FX  
CN FX (oxide)  
CN FX-UFZ-D  
CN GIAP 10  
CN Green Seal 8  
CN Hubbuck's White  
CN K-Fresh MZO  
CN Kadox 15  
CN Kadox 25  
CN Kadox 515  
CN Kadox 72

CN Kadox 911  
CN Kadox 920  
CN Kadox 930  
CN Kadox XX 78  
CN LPZIN 8

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for  
DISPLAY

DR 8011-84-5, 8047-36-7, 8047-69-6, 8050-42-8, 8051-03-4, 56592-00-8,  
57206-86-7, 185461-95-4

MF O Zn

CI COM

LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, APILIT, APILIT2, APIPAT,  
APIPAT2, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD,  
CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE,  
CIN, CSCHM, CSNB, DDFU, DETHERM\*, DIPPR\*, DRUGU, EMBASE, HSDB\*, IFICDB,  
IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PIRA,  
PROMT, RTECS\*, TOXLINE, TOXLIT, TULSA, ULIDAT, USAN, USPATFULL, VETU,  
VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

O= Zn

48183 REFERENCES IN FILE CA (1967 TO DATE)  
604 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
48241 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:26195

REFERENCE 2: 133:25367

REFERENCE 3: 133:25366

REFERENCE 4: 133:24844

REFERENCE 5: 133:24769

REFERENCE 6: 133:24732

REFERENCE 7: 133:23780

REFERENCE 8: 133:23634

REFERENCE 9: 133:22944

REFERENCE 10: 133:22460

L109 ANSWER 9 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 621-82-9 REGISTRY

CN 2-Propenoic acid, 3-phenyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cinnamic acid (7CI, 8CI)

OTHER NAMES:

CN .beta.-Phenylacrylic acid

CN 3-Phenyl-2-propenoic acid

CN 3-Phenylacrylic acid

CN Phenylacrylic acid

FS 3D CONCORD

MF C9 H8 O2

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,



CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE, GMELIN\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, TULSA, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Ph-CH=CH-CO<sub>2</sub>H

3441 REFERENCES IN FILE CA (1967 TO DATE)

489 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

3443 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:17342

REFERENCE 2: 133:16620

REFERENCE 3: 133:16480

REFERENCE 4: 133:9382

REFERENCE 5: 133:8887

REFERENCE 6: 133:8880

REFERENCE 7: 133:8879

REFERENCE 8: 133:6902

REFERENCE 9: 133:2150

REFERENCE 10: 132:352846

L109 ANSWER 10 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 552-58-9 REGISTRY

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-, (2S)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-, (S)-

CN Eriodictyol (6CI)

CN Flavanone, 3',4',5,7-tetrahydroxy- (7CI, 8CI)

OTHER NAMES:

CN (2S)-Eriodictyol

CN (S)-3',4',5,7-Tetrahydroxyflavanone

CN Huazhongilexone

FS STEREOSEARCH

DR 17654-24-9, 216973-79-4

MF C15 H12 O6

CI COM

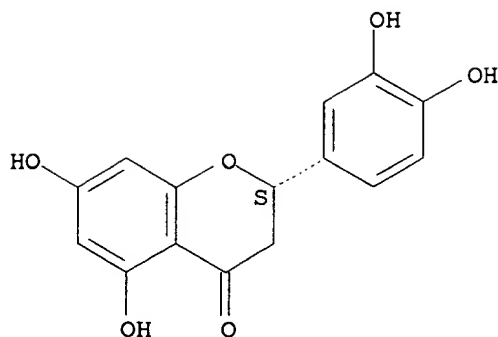
LC STN Files: AGRICOLA, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, HODOC\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, NAPRALERT, PIRA, SPECINFO, TOXLINE, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



341 REFERENCES IN FILE CA (1967 TO DATE)  
 3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 341 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 16 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 132:346807  
 REFERENCE 2: 132:345506  
 REFERENCE 3: 132:305582  
 REFERENCE 4: 132:250515  
 REFERENCE 5: 132:191743  
 REFERENCE 6: 132:165795  
 REFERENCE 7: 132:147916  
 REFERENCE 8: 132:121607  
 REFERENCE 9: 131:355899  
 REFERENCE 10: 131:298969

L109 ANSWER 11 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **548-83-4** REGISTRY

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavone, 3,5,7-trihydroxy- (7CI, 8CI)

CN Galangin (6CI)

OTHER NAMES:

CN 3,5,7-Trihydroxyflavone

CN Norizalpinin

FS 3D CONCORD

DR 50306-94-0

MF C15 H10 O5

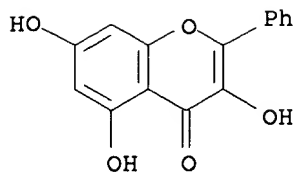
CI COM

LC STN Files: AGRICOLA, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CSCHM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



457 REFERENCES IN FILE CA (1967 TO DATE)  
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 458 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 20 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:1933  
 REFERENCE 2: 132:352593  
 REFERENCE 3: 132:332033  
 REFERENCE 4: 132:317449  
 REFERENCE 5: 132:248191  
 REFERENCE 6: 132:234409  
 REFERENCE 7: 132:202616  
 REFERENCE 8: 132:171127  
 REFERENCE 9: 132:133714  
 REFERENCE 10: 132:92414

L109 ANSWER 12 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **529-44-2** REGISTRY

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-(3,4,5-trihydroxyphenyl)- (9CI)  
 (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavone, 3,3',4',5,5',7-hexahydroxy- (8CI)

OTHER NAMES:

CN 3,3',4',5,5',7-Hexahydroxyflavone

CN 3,5,7,3',4',5'-Hexahydroxyflavone

CN Cannabiscetin

CN Myricetin

CN Myricetol

FS 3D CONCORD

MF C15 H10 O8

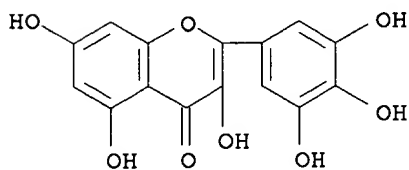
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
 BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM,  
 DDFU, DRUGU, EMBASE, IPA, MEDLINE, MRCK\*, NAPRALERT, NIOSHTIC, PHAR,  
 PROMT, RTECS\*, TOXLINE, TOXLIT, ULIDAT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



1020 REFERENCES IN FILE CA (1967 TO DATE)  
55 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
1023 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
20 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:16661  
REFERENCE 2: 133:16650  
REFERENCE 3: 133:4163  
REFERENCE 4: 133:3933  
REFERENCE 5: 133:3828  
REFERENCE 6: 133:1933  
REFERENCE 7: 132:352828  
REFERENCE 8: 132:346975  
REFERENCE 9: 132:346807  
REFERENCE 10: 132:332033

L109 ANSWER 13 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 522-12-3 REGISTRY

CN 4H-1-Benzopyran-4-one, 3-[(6-deoxy-.alpha.-L-mannopyranosyl)oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Quercitrin (7CI, 8CI)

OTHER NAMES:

CN 3,3',4',5,7-Pentahydroxyflavone 3-L-rhamnoside

CN 3-O-Rhamnosylquercetin

CN 5,7,3',4'-Tetrahydroxyflavonol 3-O-rhamnoside

CN C.I. 75720

CN Quercetin 3-L-rhamnoside

CN Quercetin 3-O-.alpha.-L-rhamnopyranoside

CN Quercetin 3-O-.alpha.-L-rhamnoside

CN Quercetin 3-O-L-rhamnoside

CN Quercetin 3-O-rhamnopyranoside

CN Quercetin 3-O-rhamnoside

CN Quercetin 3-rhamnopyranoside

CN Quercetin 3-rhamnoside

CN Quercimelin

CN Quercitroside

FS STEREOSEARCH

DR 158800-81-8, 64626-60-4, 29660-86-4, 52828-35-0, 52882-53-8

MF C21 H20 O11

CI COM

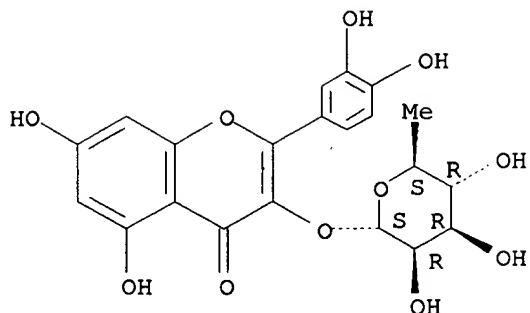
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS,  
CHEMLIST, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE, HODOC\*, HSDB\*, IPA,  
MEDLINE, MRCK\*, NAPRALERT, PIRA, RTECS\*, SPECINFO, TOXLINE, TOXLIT,  
USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



1241 REFERENCES IN FILE CA (1967 TO DATE)  
 10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1242 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 25 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:16650  
 REFERENCE 2: 133:14602  
 REFERENCE 3: 133:4163  
 REFERENCE 4: 133:3828  
 REFERENCE 5: 132:345475  
 REFERENCE 6: 132:321070  
 REFERENCE 7: 132:305044  
 REFERENCE 8: 132:292854  
 REFERENCE 9: 132:291061  
 REFERENCE 10: 132:278327

L109 ANSWER 14 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **520-36-5** REGISTRY

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavone, 4',5,7-trihydroxy- (8CI)

OTHER NAMES:

CN 4',5,7-Trihydroxyflavone

CN 5,7,4'-Trihydroxyflavone

CN Apigenin

CN Apigenine

CN Apigenol

CN C.I. Natural Yellow 1

CN Chamomile

CN LY 080400

FS 3D CONCORD

MF C15 H10 O5

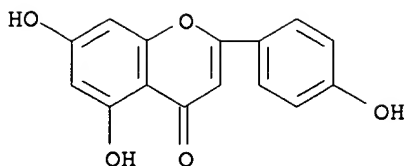
CI COM

LC STN Files: ADISINSIGHT, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, HODOC\*, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



2014 REFERENCES IN FILE CA (1967 TO DATE)  
 163 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 2016 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 17 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:14645  
 REFERENCE 2: 133:4163  
 REFERENCE 3: 133:3933  
 REFERENCE 4: 133:1933  
 REFERENCE 5: 132:345506  
 REFERENCE 6: 132:345474  
 REFERENCE 7: 132:345473  
 REFERENCE 8: 132:332075  
 REFERENCE 9: 132:332074  
 REFERENCE 10: 132:332059

L109 ANSWER 15 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 520-33-2 REGISTRY

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-(3-hydroxy-4-methoxyphenyl)-, (2S)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-(3-hydroxy-4-methoxyphenyl)-, (S)-

CN Flavanone, 3',5,7-trihydroxy-4'-methoxy- (8CI)

CN Hesperetin (6CI)

OTHER NAMES:

CN 3',5,7-Trihydroxy-4'-methoxyflavanone

CN 5,7,3'-Trihydroxy-4'-methoxyflavanone

CN Eriodictyol 4'-monomethyl ether

CN Hesperitin

FS STEREOSEARCH

DR 25465-97-8, 17654-25-0, 53077-91-1

MF C16 H14 O6

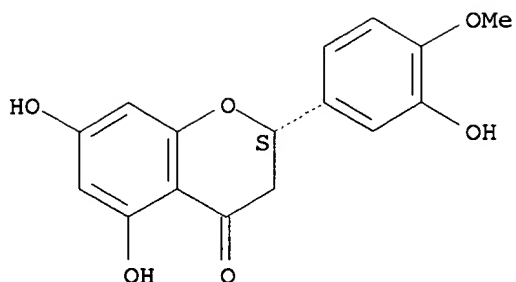
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CSCHM, DDFU, DRUGU, EMBASE, HODOC\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, NAPRALERT, TOXLINE, TOXLIT, USPATFULL  
 (\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



476 REFERENCES IN FILE CA (1967 TO DATE)  
 9 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 476 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 31 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:14640  
 REFERENCE 2: 133:4163  
 REFERENCE 3: 132:345506  
 REFERENCE 4: 132:319455  
 REFERENCE 5: 132:317992  
 REFERENCE 6: 132:308151  
 REFERENCE 7: 132:305044  
 REFERENCE 8: 132:261521  
 REFERENCE 9: 132:234345  
 REFERENCE 10: 132:227427

L109 ANSWER 16 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **520-18-3** REGISTRY

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavone, 3,4',5,7-tetrahydroxy- (7CI, 8CI)

OTHER NAMES:

CN 3,4',5,7-Tetrahydroxyflavone

CN 5,7,4'-Trihydroxyflavonol

CN C.I. 75640

CN Indigo Yellow

CN Kaempferol

CN Kaempferol

CN Kampcetin

CN Kempferol

CN Nimbecetin

CN Pelargidenolon

CN Populnetin

CN Rhamnolutein

CN Rhamnolutin

CN Robigenin

CN Swartziol

CN Trifolitin

FS 3D CONCORD

DR 14461-95-1

MF C15 H10 O6

CI COM

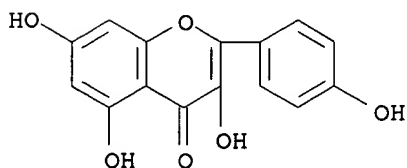
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
 BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,

CHEMLIST, CSChem, CSNB, DDFU, DRUGU, EMBASE, HODOC\*, IPA, MEDLINE, MRCK\*, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



2670 REFERENCES IN FILE CA (1967 TO DATE)

254 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2674 REFERENCES IN FILE CAPLUS (1967 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:22239

REFERENCE 2: 133:16650

REFERENCE 3: 133:4163

REFERENCE 4: 133:3933

REFERENCE 5: 133:3828

REFERENCE 6: 133:2528

REFERENCE 7: 132:352867

REFERENCE 8: 132:352594

REFERENCE 9: 132:346975

REFERENCE 10: 132:345506

L109 ANSWER 17 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 491-70-3 REGISTRY

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavone, 3',4',5,7-tetrahydroxy- (8CI)

CN Luteolin (6CI)

OTHER NAMES:

CN 3',4',5,7-Tetrahydroxyflavone

CN 5,7,3',4'-Tetrahydroxyflavone

CN Cyanidenon 1470

CN Digitoflavone

CN Flacitran

CN Luteoline

CN Luteolol

CN Weld lake

CN Yama Kariyasu

FS 3D CONCORD

DR 12671-63-5

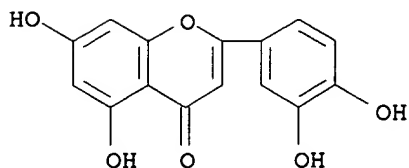
MF C15 H10 O6

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSChem, DDFU, DRUGU, EMBASE, HODOC\*, IPA, MEDLINE, MRCK\*, NAPRALERT, PIRA, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USPATFULL, VETU



(\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



1877 REFERENCES IN FILE CA (1967 TO DATE)  
 143 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1880 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 52 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:14605  
 REFERENCE 2: 133:12549  
 REFERENCE 3: 133:4163  
 REFERENCE 4: 133:3933  
 REFERENCE 5: 132:346975  
 REFERENCE 6: 132:345506  
 REFERENCE 7: 132:345474  
 REFERENCE 8: 132:332059  
 REFERENCE 9: 132:332050  
 REFERENCE 10: 132:325907

L109 ANSWER 18 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **482-36-0** REGISTRY

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(.beta.-D-galactopyranosyloxy)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Hyperin (7CI, 8CI)

OTHER NAMES:

CN 3,3',4',5,7-Pentahydroxyflavone 3-O-.beta.-D-galactopyranoside

CN 3-O-.beta.-D-galactopyranosylquercetin

CN Hyperosid

CN Hyperoside

CN Quercetin 3-.beta.-D-galactoside

CN Quercetin 3-.beta.-galactoside

CN Quercetin 3-O-.beta.-D-galactopyranoside

CN Quercetin 3-O-.beta.-D-galactoside

FS STEREOSEARCH

DR 158560-10-2, 56552-81-9, 63003-36-1, 61277-37-0, 112457-37-1, 71184-39-9, 26857-03-4, 28986-85-8, 29224-70-2

MF C21 H20 O12

CI COM

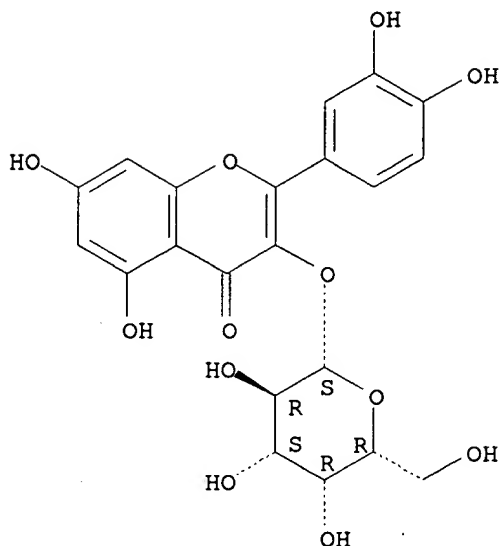
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, NAPRALERT, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



1134 REFERENCES IN FILE CA (1967 TO DATE)  
 8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1135 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:14645  
 REFERENCE 2: 133:14602  
 REFERENCE 3: 133:14589  
 REFERENCE 4: 133:14585  
 REFERENCE 5: 133:3828  
 REFERENCE 6: 132:345481  
 REFERENCE 7: 132:343347  
 REFERENCE 8: 132:332064  
 REFERENCE 9: 132:326078  
 REFERENCE 10: 132:319752

L109 ANSWER 19 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **482-35-9** REGISTRY

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(.beta.-D-glucopyranosyloxy)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Hirsutrin (8CI)

OTHER NAMES:

CN 3-Glucosylquercetin

CN 3-O-.beta.-D-Glucopyranosylquercetin

CN Contigoside B

CN Glucosyl-3-quercetin

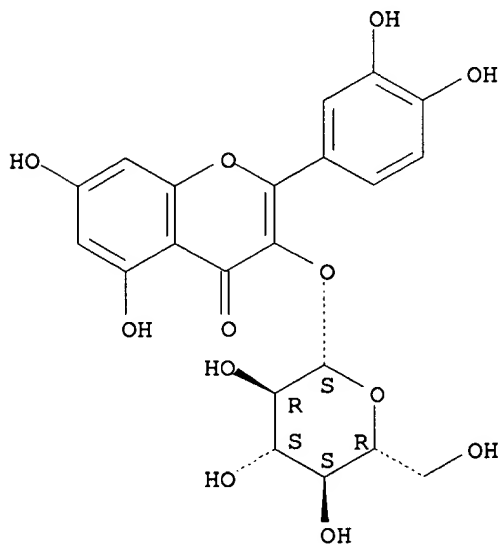
CN Isoquercetin

CN Q 5

CN Quercetin 3-.beta.-D-glucopyranoside

CN Quercetin 3-.beta.-D-glucoside  
 CN Quercetin 3-.beta.-glucoside  
 CN Quercetin 3-D-glucoside  
 CN Quercetin 3-glucoside  
 CN Quercetin 3-mono-D-glucoside  
 CN Quercetin 3-monoglucoside  
 CN Quercetin 3-O-.beta.-D-glucopyranoside  
 CN Quercetin 3-O-.beta.-D-glucoside  
 CN Quercetin 3-O-.beta.-glucoside  
 CN Quercetin 3-O-glucopyranoside  
 CN Quercetin 3-O-glucoside  
 CN Quercetin 3.beta.-glucoside  
 CN Quercetin 3.beta.-O-glucoside  
 CN Quercetol 3-glucoside  
 CN Quercetol 3-monoglucoside  
 FS STEREOSEARCH  
 DR 133946-90-4, 61277-38-1, 27215-07-2, 28454-82-2, 107438-55-1  
 MF C21 H20 O12  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
 BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMINFORMRX, CSCHM, DDFU,  
 DRUGU, EMBASE, IPA, NAPRALERT, RTECS\*, TOXLINE, TOXLIT, USPATFULL  
 (\*File contains numerically searchable property data)

Absolute stereochemistry.



1049 REFERENCES IN FILE CA (1967 TO DATE)  
 18 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1051 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 18 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:16661  
 REFERENCE 2: 133:14598  
 REFERENCE 3: 133:14585  
 REFERENCE 4: 133:3828  
 REFERENCE 5: 133:264  
 REFERENCE 6: 132:352791  
 REFERENCE 7: 132:345472

REFERENCE 8: 132:343347

REFERENCE 9: 132:332011

REFERENCE 10: 132:326078

L109 ANSWER 20 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 480-44-4 REGISTRY

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acacetin (6CI)

CN Flavone, 5,7-dihydroxy-4'-methoxy- (7CI, 8CI)

OTHER NAMES:

CN 4'-Methylapigenin

CN 4'-O-Methylapigenin

CN 5,7-Dihydroxy-4'-methoxyflavone

CN Apigenin 4'-methyl ether

CN Buddleoflavonol

CN Linarigenin

CN LY 064233

FS 3D CONCORD

MF C16 H12 O5

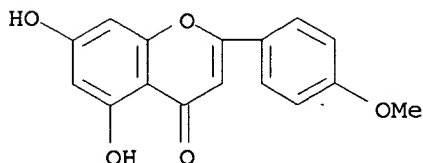
CI COM

LC STN Files: AGRICOLA, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSChem, DDFU, DRUGU, EMBASE, HODOC\*, IPA, MEDLINE, MRCK\*, NAPRALERT, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



452 REFERENCES IN FILE CA (1967 TO DATE)

13 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

454 REFERENCES IN FILE CAPLUS (1967 TO DATE)

31 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:4163

REFERENCE 2: 132:305044

REFERENCE 3: 132:291064

REFERENCE 4: 132:278288

REFERENCE 5: 132:219573

REFERENCE 6: 132:219571

REFERENCE 7: 132:175757

REFERENCE 8: 132:90705

REFERENCE 9: 132:78747

REFERENCE 10: 132:75514

L109 ANSWER 21 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **480-40-0** REGISTRY

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Chrysin (6CI)

CN Flavone, 5,7-dihydroxy- (7CI, 8CI)

OTHER NAMES:

CN 5,7-Dihydroxyflavone

FS 3D CONCORD

MF C15 H10 O4

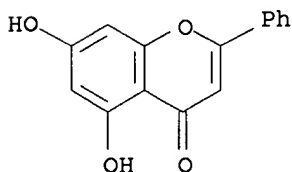
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE, HODOC\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



752 REFERENCES IN FILE CA (1967 TO DATE)

7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

753 REFERENCES IN FILE CAPLUS (1967 TO DATE)

42 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:17358

REFERENCE 2: 133:17274

REFERENCE 3: 133:4533

REFERENCE 4: 133:1933

REFERENCE 5: 132:352593

REFERENCE 6: 132:346975

REFERENCE 7: 132:319443

REFERENCE 8: 132:317449

REFERENCE 9: 132:308835

REFERENCE 10: 132:308151

L109 ANSWER 22 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **480-19-3** REGISTRY

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-(4-hydroxy-3-methoxyphenyl)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavone, 3,4',5,7-tetrahydroxy-3'-methoxy- (8CI)

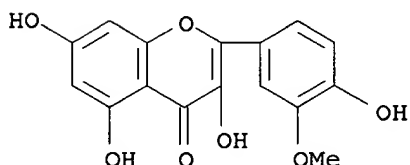
CN Isorhamnetin (6CI)

OTHER NAMES:

CN 3'-Methoxyquercetin

CN 3'-Methylquercetin

CN 3'-O-Methylquercetin  
 CN 3,4',5,7-Tetrahydroxy-3'-methoxyflavone  
 CN C.I. 75680  
 CN Isorhamnetol  
 CN Quercetin 3'-methyl ether  
 FS 3D CONCORD  
 MF C16 H12 O7  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
 BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CIN,  
 CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, NAPRALERT, PIRA, RTECS\*,  
 SPECINFO, TOXLINE, TOXLIT, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



719 REFERENCES IN FILE CA (1967 TO DATE)  
 70 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 720 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 41 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:22239  
 REFERENCE 2: 132:352791  
 REFERENCE 3: 132:326032  
 REFERENCE 4: 132:319455  
 REFERENCE 5: 132:305044  
 REFERENCE 6: 132:291061  
 REFERENCE 7: 132:278593  
 REFERENCE 8: 132:278312  
 REFERENCE 9: 132:262613  
 REFERENCE 10: 132:261521

L109 ANSWER 23 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 154-23-4 REGISTRY

CN 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-dihydro-,  
 (2R,3S)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-dihydro-,  
 (2R-trans)-

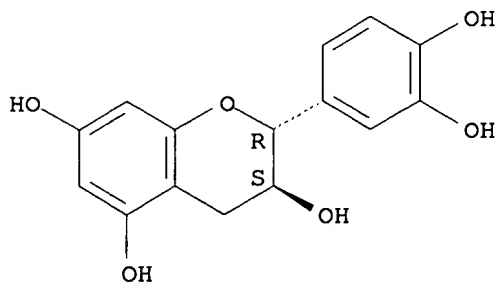
CN Catechol (8CI)

OTHER NAMES:

CN (+)-(2R:3S)-5,7,3',4'-Tetrahydroxyflavan-3-ol  
 CN (+)-3',4',5,7-Tetrahydroxy-2,3-trans-flavan-3-ol  
 CN (+)-Catechin  
 CN (+)-Catechol  
 CN (+)-Cianidanol

CN (+)-Cyanidan-3-ol  
 CN (+)-Cyanidanol  
 CN (+)-Cyanidanol-3  
 CN 3-Cyanidanol, (+)-  
 CN Biocatechin  
 CN Catechin  
 CN Catechin (flavan)  
 CN Catechinic acid  
 CN Catechol (flavan)  
 CN Catechuic acid  
 CN Catergen  
 CN Cianidanol  
 CN Cyanidanol  
 CN D-(+)-Catechin  
 CN D-Catechin  
 CN d-Catechin  
 CN D-Catechol  
 CN trans-(+)-3,3',4',5,7-Flavanpentol  
 FS STEREOSEARCH  
 DR 321-01-7, 16198-00-8, 4211-28-3, 5323-80-8, 159761-73-6  
 MF C15 H14 O6  
 CI COM  
 LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
 BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,  
 CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE,  
 IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, NAPRALERT, NIOSHTIC,  
 PDLCOM\*, PHAR, PIRA, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USAN,  
 USPATFULL, VETU  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*, WHO  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



3078 REFERENCES IN FILE CA (1967 TO DATE)  
 202 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 3085 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:21963  
 REFERENCE 2: 133:16650  
 REFERENCE 3: 133:16514  
 REFERENCE 4: 133:12432  
 REFERENCE 5: 133:8559  
 REFERENCE 6: 133:4547  
 REFERENCE 7: 133:3956  
 REFERENCE 8: 133:3950

REFERENCE 9: 133:2404

REFERENCE 10: 133:404

L109 ANSWER 24 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 153-18-4 REGISTRY

CN 4H-1-Benzopyran-4-one, 3-[[6-O-(6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-glucopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavone, 3,3',4',5,5',7-hexahydroxy-, (6-O-.alpha.-L-rhamnosyl-.beta.-D-glucoside) (7CI)

CN Ilixanthin (6CI)

CN Rutin (8CI)

OTHER NAMES:

CN 3,3',4',5,7-Pentahydroxyflavone 3-O-rutinoside

CN 3,3',4',5,7-Pentahydroxyflavone 3-rutinoside

CN 3-Rutinosylquercetin

CN 5,7,3',4'-Tetrahydroxyflavonol-3-O-rutinoside

CN Birutan

CN C.I. 75730

CN Eldrin

CN Globulariacitrin

CN Globularicitrin

CN Melin

CN Myrticalorin

CN Myrticolorin

CN Myticolorin

CN Osyritin

CN Osyritrin

CN Oxyritin

CN Paliuuroside

CN Phytomelin

CN Quercetin 3-.beta.-rutinoside

CN Quercetin 3-O-.beta.-D-rutinoside

CN Quercetin 3-O-.beta.-rutinoside

CN Quercetin 3-O-rutinoside

CN Quercetin 3-rhamnoglucoside

CN Quercetin 3-rutinoside

CN Rutabion

CN Rutinic acid

CN Rutosid

CN Rutoside

CN Sophorin

CN Tanrutin

CN Violaquercitrin

FS STEREOSEARCH

DR 164535-43-7, 1416-01-9, 158560-09-9, 56764-99-9, 18449-50-8, 146525-66-8, 48197-72-4, 115888-40-9

MF C27 H30 O16

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, DDFU, DRUGU, EMBASE, GMELIN\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, NAPRALERT, NIOSHTIC, PROMT, RTECS\*, SPECINFO, TOXLIT, USAN, USPATFULL, VETU

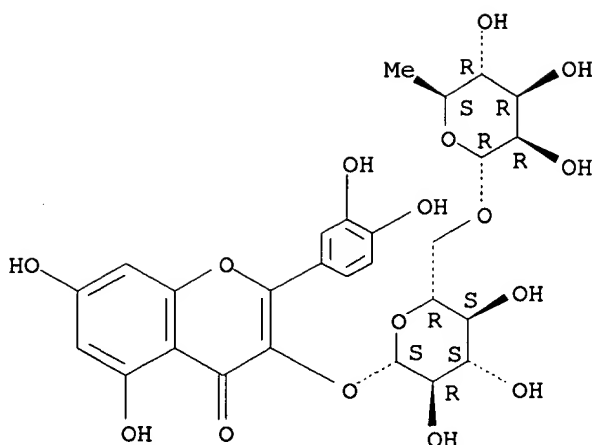
(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*, WHO

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.





3990 REFERENCES IN FILE CA (1967 TO DATE)  
 171 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 3995 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:16650

REFERENCE 2: 133:14745

REFERENCE 3: 133:14602

REFERENCE 4: 133:14598

REFERENCE 5: 133:12158

REFERENCE 6: 133:4163

REFERENCE 7: 133:3828

REFERENCE 8: 133:1584

REFERENCE 9: 133:404

REFERENCE 10: 132:352828

L109 ANSWER 25 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 150-13-0 REGISTRY

CN Benzoic acid, 4-amino- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzoic acid, p-amino- (8CI)

OTHER NAMES:

CN 4-Aminobenzoic acid

CN 4-Carboxyaniline

CN Amben

CN Aniline-4-carboxylic acid

CN Anti-Chromotrichia factor

CN Anticanitic vitamin

CN Chromotrichia factor

CN Hachemina

CN p-Aminobenzoic acid

CN p-Carboxyaniline

CN p-Carboxyphenylamine

CN PAB

CN PABA

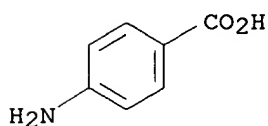
CN Pabacyd

CN Pabafilm

CN Pabamine

CN Paraminol

CN Paronate  
 CN Romavit  
 CN Trichochromogenic factor  
 CN Vitamin BX  
 CN Vitamin H'  
 FS 3D CONCORD  
 DR 8014-65-1  
 MF C7 H7 N O2  
 CI COM  
 LC STN Files: ADISINSIGHT, AGRICOLA, AIDSLINE, ANABSTR, BEILSTEIN\*,  
 BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS,  
 CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM,  
 CSNB, DDFU, DETHERM\*, DRUGU, EMBASE, GMELIN\*, HODOC\*, HSDB\*, IFICDB,  
 IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC,  
 PDLCOM\*, PHAR, PIRA, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, ULIDAT,  
 USAN, USPATFULL, VETU  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



5385 REFERENCES IN FILE CA (1967 TO DATE)  
 375 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 5389 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:22490  
 REFERENCE 2: 133:22162  
 REFERENCE 3: 133:17239  
 REFERENCE 4: 133:17172  
 REFERENCE 5: 133:14840  
 REFERENCE 6: 133:14837  
 REFERENCE 7: 133:12044  
 REFERENCE 8: 133:8880  
 REFERENCE 9: 133:8879  
 REFERENCE 10: 133:4278

L109 ANSWER 26 OF 29 REGISTRY COPYRIGHT 2000 ACS

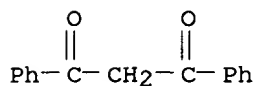
RN 120-46-7 REGISTRY

CN 1,3-Propanedione, 1,3-diphenyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN .omega.-Benzoylacetophenone  
 CN 1,3-Diphenyl-1,3-propanedione  
 CN 2-Benzoylacetophenone  
 CN Dibenzoylmethane  
 CN Karenzu DK 2  
 CN Phenyl phenacyl ketone  
 CN Rhodiastab 83  
 FS 3D CONCORD  
 DR 61346-73-4

MF C15 H12 O2  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DETHERM\*, EMBASE, GMELIN\*, HODOC\*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK\*, MSDS-OHS, PIRA, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USPATFULL, VTB  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



1857 REFERENCES IN FILE CA (1967 TO DATE)  
 198 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1859 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 60 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:26060  
 REFERENCE 2: 133:24510  
 REFERENCE 3: 133:22170  
 REFERENCE 4: 133:8884  
 REFERENCE 5: 133:8880  
 REFERENCE 6: 133:8879  
 REFERENCE 7: 133:7084  
 REFERENCE 8: 133:5117  
 REFERENCE 9: 132:356113  
 REFERENCE 10: 132:356090

L109 ANSWER 27 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 119-61-9 REGISTRY

CN Methanone, diphenyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzophenone (7CI, 8CI)

OTHER NAMES:

CN .alpha.-Oxodiphenylmethane

CN .alpha.-Oxoditane

CN Adjutan 6016

CN Benzene, benzoyl-

CN Benzoylbenzene

CN Diphenyl ketone

CN Diphenylmethanone

CN Kayacure BP

CN Phenyl ketone

CN Speedcure BP

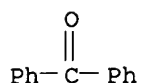
FS 3D CONCORD

MF C13 H10 O

CI COM

LC STN Files: AGRICOLA, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DIPPR\*, DRUGU, EMBASE, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC,

PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, USPATFULL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)



11837 REFERENCES IN FILE CA (1967 TO DATE)  
436 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
11853 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:26300  
REFERENCE 2: 133:24900  
REFERENCE 3: 133:24593  
REFERENCE 4: 133:18461  
REFERENCE 5: 133:18460  
REFERENCE 6: 133:18459  
REFERENCE 7: 133:18448  
REFERENCE 8: 133:17577  
REFERENCE 9: 133:17480  
REFERENCE 10: 133:17235

L109 ANSWER 28 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **117-39-5** REGISTRY

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy- (9CI)  
(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavone, 3,3',4',5,7-pentahydroxy- (7CI, 8CI)

CN Flavone, 3,4',5,5',7-pentahydroxy- (6CI)

OTHER NAMES:

CN 3,3',4',5,7-Pentahydroxyflavone

CN 3,5,7,3',4'-Pentahydroxyflavone

CN C.I. 75670

CN C.I. Natural Yellow 10

CN Cyanidelonon 1522

CN Meletin

CN Quercetin

CN Quercetine

CN Quercetol

CN Quercitin

CN Quertin

CN Quertine

CN Sophoretin

CN Xanthaurine

FS 3D CONCORD

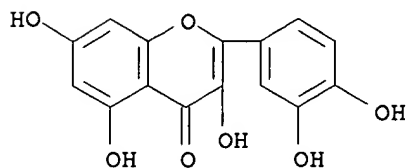
DR 73123-10-1, 74893-81-5

MF C15 H10 O7

CI COM

LC STN Files: ADISINSIGHT, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS,  
BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,

CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DRUGU,  
 EMBASE, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IMSDIRECTORY, IPA,  
 MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PHAR, PIRA, PROMT,  
 RTECS\*, SPECINFO, TOXLINE, TOXLIT, TULSA, USPATFULL, VETU  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



6191 REFERENCES IN FILE CA (1967 TO DATE)  
 487 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 6201 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:22239

REFERENCE 2: 133:16661

REFERENCE 3: 133:16650

REFERENCE 4: 133:14645

REFERENCE 5: 133:14605

REFERENCE 6: 133:14602

REFERENCE 7: 133:12495

REFERENCE 8: 133:4163

REFERENCE 9: 133:3933

REFERENCE 10: 133:3828

L109 ANSWER 29 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 50-81-7 REGISTRY

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN (+)-Ascorbic acid

CN 3-keto-L-Gulofuranolactone

CN 3-Oxo-L-gulofuranolactone

CN Adenex

CN Allercorb

CN Antiscorbic vitamin

CN Antiscorbutic vitamin

CN Ascoltin

CN Ascorbajen

CN Ascorbic acid

CN Ascorbutina

CN Ascorin

CN Ascorteal

CN Ascorvit

CN C-Quin

CN C-Vimin

CN Cantan

CN Cantaxin

CN Catavin C

CN Ce-Mi-Lin

CN Ce-Vi-Sol  
 CN Cebicure  
 CN Cebion  
 CN Cebione  
 CN Cecon  
 CN Cegiolan  
 CN Ceglion  
 CN Celaskon  
 CN Celin  
 CN Cemagyl  
 CN Cenetone  
 CN Cereon  
 CN Cergona  
 CN Cescorbat  
 CN Cetamid  
 CN Cetemican  
 CN Cevalin  
 CN Cevatine  
 CN Cevex  
 CN Cevimin  
 CN Cevital  
 CN Cevitamic acid  
 CN Cevitamin  
 CN Cevitan  
 CN Cevitex  
 CN Chewcee  
 CN Ciamin  
 CN Cipca  
 CN Citrovit  
 CN Colascor

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY

FS STEREOSEARCH

DR 56533-05-2, 57304-74-2, 57606-40-3, 56172-55-5, 129940-97-2, 14536-17-5, 50976-75-5, 154170-90-8, 89924-69-6, 30208-61-8, 259133-78-3

MF C6 H8 O6

CI COM

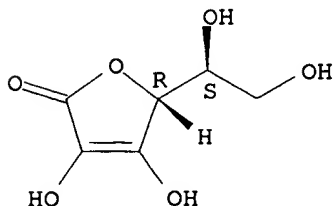
LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, CSNB, DDFU, DETHERM\*, DIPPR\*, DRUGU, EMBASE, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IMSDIRECTORY, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PHAR, PIRA, PROMT, RTECS\*, SPECINFO, TOXLINE, TOXLIT, TULSA, ULIDAT, USAN, USPATFULL, VETU, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*, WHO

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



39605 REFERENCES IN FILE CA (1967 TO DATE)

952 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

39657 REFERENCES IN FILE CAPLUS (1967 TO DATE)

12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:26204  
 REFERENCE 2: 133:22445  
 REFERENCE 3: 133:22440  
 REFERENCE 4: 133:22406  
 REFERENCE 5: 133:22200  
 REFERENCE 6: 133:22197  
 REFERENCE 7: 133:22178  
 REFERENCE 8: 133:22148  
 REFERENCE 9: 133:21992  
 REFERENCE 10: 133:20852

=> d ide can tot 1110

L110 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2000 ACS

RN 38975-80-3 REGISTRY

CN **4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(.alpha.-D-glucofuranosyloxy)-5,7-dihydroxy- (9CI)** (CA INDEX NAME)

OTHER NAMES:

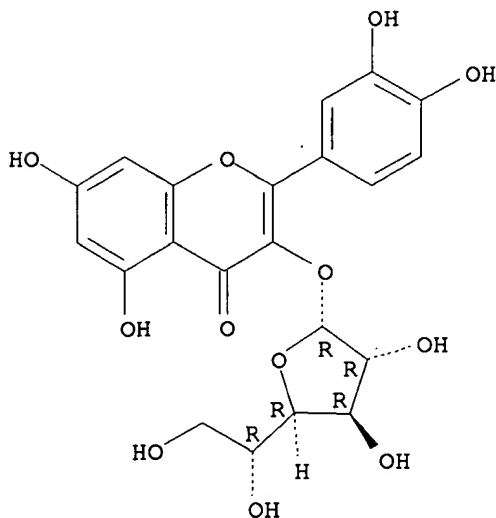
CN **Quercetin 3-.alpha.-D-glucofuranoside**

FS STEREOSEARCH

MF **C21 H20 O12**

LC STN Files: BEILSTEIN\*, CA, CAPLUS  
 (\*File contains numerically searchable property data)

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 77:162005

L110 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2000 ACS

RN 21637-25-2 REGISTRY

CN **4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(.beta.-D-glucofuranosyloxy)-5,7-dihydroxy-** (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN **Flavone, 3,3',4',5,7-pentahydroxy-, 3-.beta.-D-glucofuranoside** (8CI)

CN **Glucofuranoside, quercetin-3, .beta.-D-**

OTHER NAMES:

CN **Isoquercitrin**

CN **Isoquercitroside**

CN **Isotrifoliin**

CN **Quercetin 3-(.beta.-D-glucofuranoside)**

CN **Quercetin 3-O-.beta.-D-glucofuranoside**

FS STEREOSEARCH

DR 1399-98-0

MF **C21 H20 O12**

CI COM

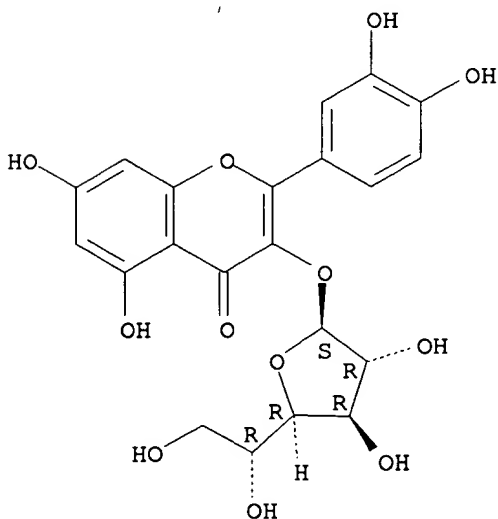
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, MRCK\*, NAPRALERT, NIOSHTIC, RTECS\*, TOXLINE, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



644 REFERENCES IN FILE CA (1967 TO DATE)  
 7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 646 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:14602

REFERENCE 2: 133:3828

REFERENCE 3: 132:346807

REFERENCE 4: 132:332064

REFERENCE 5: 132:332060

REFERENCE 6: 132:321070

REFERENCE 7: 132:278327



REFERENCE 8: 132:262608

REFERENCE 9: 132:221707

REFERENCE 10: 132:212783

=> d his l111-

(FILE 'REGISTRY' ENTERED AT 10:45:36 ON 03 JUL 2000)

FILE 'HCAPLUS' ENTERED AT 10:49:06 ON 03 JUL 2000

L111 646 S L110  
 L112 524 S L111 AND L84,L85  
 L113 122 S L112 AND (COMBIN? OR FORMUL? OR MIX? OR SYNERG? OR COMPOSITIO  
 L114 24 S L113 AND (1 OR 62 OR 63)/SC  
 L115 14 S L113 AND (1 OR 62 OR 63)/SX  
 L116 30 S L114,L115 AND (PY<=1999 OR PRY<=1999 OR PRY.B<=1999 OR AY<=19

=> d all tot l116

L116 ANSWER 1 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 2000:53336 HCAPLUS

DN 132:88203

TI Hypericin, hypericin derivatives, and Hypericum extract as specific T-type calcium channel blockers, and their use as T-type calcium channel targeted therapeutics

IN Shan, Jacqueline J.; Wu, Xi-Chen; Pang, Peter K. T.; Ling, Lei

PA CV Technologies Inc., Can.

SO PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DT Patent

LA English

IC A01N065-00; A01N035-00; A01N029-00; C07C017-00; C07C019-08; C07C022-00

CC 1-12 (Pharmacology)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000002455	A1	20000120	WO 1999-US14132	19990709 <--
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9949581	A1	20000201	AU 1999-49581	19990709 <--
PRAI	US 1998-PV92227		19980709 <--		
	WO 1999-US14132		19990709 <--		
OS	MARPAT 132:88203				
AB	Hypericin has been shown to specifically inhibit T-type calcium channel activity. Hypericum ext. contg. hypericin also inhibits T-type calcium channel activity. Moreover, other chems. in Hypericum ext. showed a <b>synergistic</b> effect to hypericin. In view of this, hypericin or hypericin-contg. Hypericum ext. can be used as T-channel blockers. Hypericum ext., ext. of other species of the Hypericum genus, ext. of other plants contg. hypericin, hypericin derivs., hypericin analogs, e.g. pseudohypericin, and other Hypericum ext. constituents can be used as therapeutics targeted at T-type calcium channels for treatment of diseases assocd. with T-channel abnormality. Methods for administering hypericin and Hypericum ext. are disclosed.				
ST	hypericin deriv T type calcium channel blocker; Hypericum ext T type calcium channel blocker				

IT Brain  
(aging; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Heart, disease  
(angina pectoris; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Aging, animal  
(brain; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Ion channel blockers  
(calcium, T-type; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Nervous system  
(degeneration; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT St.-John's-wort (Hypericum)  
(ext.; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Heart, disease  
(failure, chronic; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Heart, disease  
(failure; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Anti-ischemic agents  
Antiarrhythmics  
Anticonvulsants  
Antidepressants  
Antidiabetic agents  
Antihypertensives  
Antimigraine agents  
Cardiovascular agents  
St.-John's-wort (Hypericum perforatum)  
(hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Nerve, neoplasm  
(neuroblastoma, N1E115 cells; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Parturition  
(premature; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Blood vessel  
(smooth muscle, cells; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Heart  
(ventricle, ventricular cells; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT 9004-10-8, Insulin, biological studies  
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
(hyper- and hypoinsulinemia; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT 52-39-1, Aldosterone

RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
(hyperaldosteronemia; hypericin, derivs., and Hypericum ext. as  
specific T-type calcium channel blockers and use as T-type calcium  
channel targeted therapeutics)

IT 117-39-5, Quercetin 153-18-4, Rutin 482-36-0,  
Hyperoside 522-12-3, Quercitrin 548-04-9, Hypericin  
548-04-9D, Hypericin, derivs. and analogs 1617-53-4, Amentoflavone  
11079-53-1, Hyperforin 21637-25-2, Isoquercitrin 55954-61-5,  
Pseudohypericin 143183-63-5, Adhyperforin  
RL: BAC (Biological activity or effector, except adverse); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)  
(hypericin, derivs., and Hypericum ext. as specific T-type calcium  
channel blockers and use as T-type calcium channel targeted  
therapeutics)

RE.CNT 3

RE

- (1) Kikuta; US 5433957 A 1995
- (2) Mazur; US 5120412 A 1992
- (3) Noamesi; Planta Medica 1991, V57(Suppl 1), PA55

L116 ANSWER 2 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:764378 HCAPLUS

DN 131:355899

TI Flavonoid compounds and their use, especially in cosmetics

IN Bresson-Rival, Delphine; Mariotte, Anne-Marie; Boumendjel, Ahcene;  
Perrier, Eric

PA Coletica S. A., Fr.

SO Ger. Offen., 22 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C07D311-02

ICS A61K007-00; A61K031-525

CC 62-1 (Essential Oils and Cosmetics)  
Section cross-reference(s): 26, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19922287	A1	19991125	DE 1999-19922287	19990514 <--
	FR 2778663	A1	19991119	FR 1998-6194	19980515 <--
	JP 2000026263	A2	20000125	JP 1999-136331	19990517 <--
PRAI	FR 1998-6194		19980515	<--	

OS MARPAT 131:355899

AB 4-Keto flavonoids (phenylchromones) are stabilized for use in cosmetic,  
pharmaceutical, and dietetic **compns.** by esterification on a free  
OH group with a C3-30 monocarboxylic acid without loss of their biol.  
properties. These esters have enhanced lipid soly. and affinity for cell  
membranes and the epidermis. Thus, hesperetin 16.55 reacted with lauroyl  
chloride 26.5 mmol in refluxing PhMe to form dilauroylhesperetin in 64%  
yield. The diester showed greater radical-scavenging activity than native  
hesperetin.

ST flavonoid stabilization esterification; hesperetin lauroyl cosmetic  
pharmaceutical

IT Glycosides

RL: AGR (Agricultural use); BAC (Biological activity or effector, except  
adverse); BUU (Biological use, unclassified); FFD (Food or feed use); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)

(C-flavonoid oxo, esters; flavonoid compds. for use esp. in cosmetics)

IT Cosmetics

(antiaging; flavonoid compds. for use esp. in cosmetics)

IT Skin, disease

(cuperosis; flavonoid compds. for use esp. in cosmetics)

IT Cosmetics

Drug delivery systems

(emulsions; flavonoid compds. for use esp. in cosmetics)

IT Fatty acids, biological studies

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (esters, with flavones; flavonoid compds. for use esp. in cosmetics)

IT Flavones  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (esters; flavonoid compds. for use esp. in cosmetics)

IT Agrochemical **formulations**  
 Antiobesity agents  
 Cosmetics  
 Dehydration, physiological  
 Drug delivery systems  
 Erythema  
 Radical scavengers  
 Shampoos  
 (flavonoid compds. for use esp. in cosmetics)

IT Glycosides  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (flavonoid, oxo, esters; flavonoid compds. for use esp. in cosmetics)

IT Cosmetics  
 (gels; flavonoid compds. for use esp. in cosmetics)

IT Edema  
 (inhibitors; flavonoid compds. for use esp. in cosmetics)

IT Enzymes, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors; flavonoid compds. for use esp. in cosmetics)

IT Cosmetics  
 (lipsticks; flavonoid compds. for use esp. in cosmetics)

IT Elasticity  
 (of skin, agents improving; flavonoid compds. for use esp. in cosmetics)

IT Bath preparations  
 (shower gels; flavonoid compds. for use esp. in cosmetics)

IT Oxidation  
 (stabilization of flavonoids towards; flavonoid compds. for use esp. in cosmetics)

IT Extracellular matrix  
 (stimulants for formation of; flavonoid compds. for use esp. in cosmetics)

IT Capillary vessel  
 Vein  
 (strengthening of; flavonoid compds. for use esp. in cosmetics)

IT Drug delivery systems  
 (topical; flavonoid compds. for use esp. in cosmetics)

IT Cosmetics  
 (wrinkle-preventing; flavonoid compds. for use esp. in cosmetics)

IT 480-41-1DP, Naringenin, triesters 250707-88-1P, Monopalmitoylhesperitin  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); FFD (Food or feed use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (flavonoid compds. for use esp. in cosmetics)

IT **153-18-4DP**, Rutin, lauroyl acylated 520-27-4DP, Diosmin, lauroyl acylated 82546-97-2P 205057-54-1P 205057-64-3P 205057-65-4P  
 211104-68-6P 250661-83-7P 250661-85-9P 250661-86-0P 250661-87-1P  
 250661-88-2P 250661-89-3P 250661-90-6P 250661-91-7P 250661-92-8P  
 250661-93-9P 250707-81-4P, Dilauroylhesperitin 250707-82-5P,  
 Monolauroylhesperitin 250707-84-7P, Dipalmitoylhesperitin  
 250707-85-8P, Triundecylenoylhesperitin  
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); FFD (Food or feed use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(flavonoid compds. for use esp. in cosmetics)

IT 106-31-0, Butyric anhydride 112-16-3, Lauroyl chloride 112-67-4, Palmitoyl chloride 117-39-5, Quercetin 153-18-4, Rutin 480-18-2 480-20-6, Dihydrokaempferol 480-41-1, Naringenin 482-36-0, Hyperoside 491-70-3, Luteolol 520-18-3, Kaempferol 520-26-3, Hesperidin 520-27-4, Diosmin 520-33-2, Hesperitin 520-36-5, Apigenol 521-32-4, Bilobetin 522-12-3, Quercitroside 552-58-9, Eriodictyol 1617-53-4, Amentoflavone 3122-88-1, Eucalyptin 6601-62-3, Cirsimaritin 10236-47-2, Naringin 19202-36-9, Hinokiflavone 20310-89-8, Saponarin 20316-62-5, Tiliroside 21637-25-2, Isoquercitroside 28608-75-5 51938-32-0, Shaftoside 68236-12-4, Cajaflavanone

RL: RCT (Reactant)

(flavonoid compds. for use esp. in cosmetics)

IT 9004-06-2, Elastase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; flavonoid compds. for use esp. in cosmetics)

L116 ANSWER 3 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:562762 HCAPLUS

DN 131:174852

TI Cosmetic and dermatological combinations of carnitine or acylcarnitines with antioxidants

IN Staeb, Franz; Schoenrock, Uwe; Schreiner, Volker; Max, Heiner; Untied, Sven

PA Beiersdorf A.-G., Germany

SO Ger. Offen., 18 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM A61K007-48

ICS A61K007-42

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.
PI	DE 19806890	A1	19990826	DE 1998-19806890
	EP 945126	A2	19990929	EP 1999-101742
	EP 945126	A3	19991124	

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRAI DE 1998-19806890 19980219 <--

OS MARPAT 131:174852

AB Preps. contg. the title combinations are useful for conditioning the skin and protecting it from environmental influences which cause premature skin aging. Preferred antioxidants are flavone and flavanone derivs. Thus, a water-in-oil cream contained paraffin oil 10.00, petrolatum 4.00, lanolin alc. 1.00, ethoxylated hydrogenated castor oil 3.00, Al stearate 0.40, .alpha.-glucosylrutin 0.50, glycerin 2.00, O-propionyl-L-carnitine 0.20, preservative, dye, perfume, and H2O to 100.00 wt.%.  
ST skin conditioner carnitine antioxidant; antiaging cosmetic acylcarnitine flavone  
IT Cosmetics  
(antiaging; cosmetic and dermatol. combinations of carnitine or acylcarnitines with antioxidants)

IT Antioxidants  
Sunscreens  
(cosmetic and dermatol. combinations of carnitine or acylcarnitines with antioxidants)

IT Flavones  
Flavonoids  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(cosmetic and dermatol. combinations of carnitine or

*date not saved*  
4132782

acylcarnitines with antioxidants)

IT Cosmetics  
(creams; cosmetic and dermatol. **combinations** of carnitine or acylcarnitines with antioxidants)

IT Cosmetics  
(gels, liposome-contg.; cosmetic and dermatol. **combinations** of carnitine or acylcarnitines with antioxidants)

IT Drug delivery systems  
(gels, topical, liposome-contg.; cosmetic and dermatol. **combinations** of carnitine or acylcarnitines with antioxidants)

IT Cosmetics  
Drug delivery systems  
(lotions; cosmetic and dermatol. **combinations** of carnitine or acylcarnitines with antioxidants)

IT Drug delivery systems  
(ointments, creams; cosmetic and dermatol. **combinations** of carnitine or acylcarnitines with antioxidants)

IT Flavonoids  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(oxo dihydro; cosmetic and dermatol. **combinations** of carnitine or acylcarnitines with antioxidants)

IT Cosmetics  
Drug delivery systems  
(sprays; cosmetic and dermatol. **combinations** of carnitine or acylcarnitines with antioxidants)

IT Drug delivery systems  
(topical; cosmetic and dermatol. **combinations** of carnitine or acylcarnitines with antioxidants)

IT 58-95-7, .alpha.-Tocopheryl acetate 59-02-9, .alpha.-Tocopherol 117-39-5, Quercetin 153-18-4, Rutin 406-76-8, DL-Carnitine 406-76-8D, DL-Carnitine, acyl derivs. 480-18-2, Taxifolin 520-26-3, Hesperidin 541-15-1, L-Carnitine 577-38-8, Flavanomarein 3040-38-8 4382-33-6, Dihydorobinetin 7085-55-4, Troxerutin 10236-47-2, Naringin 14992-62-2 20064-19-1 21637-25-2, Isoquercitrin 23869-24-1, Monoxerutin 38965-51-4, Eriodictyol 7-glucoside 108910-78-7, Magnesium ascorbyl phosphate 130603-71-3, .alpha.-Glucosylrutin  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(cosmetic and dermatol. **combinations** of carnitine or acylcarnitines with antioxidants)

RE.CNT 3

RE

(1) Anon; EP 0774249 A2 HCAPLUS

(2) Anon; FR 2654618 HCAPLUS

(3) Anon; US 4839159 HCAPLUS

L116 ANSWER 4 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:360406 HCAPLUS

DN 132:97939

TI Quality assessment of Paliurus spina-christi extracts

AU Brantner, Adelheid H.; Males, Zeljan

CS Institute of Pharmacognosy, University of Graz, Graz, A-8010, Austria

SO J. Ethnopharmacol. (1999), 66(2), 175-179

CODEN: JOETD7; ISSN: 0378-8741

PB Elsevier Science Ireland Ltd.

DT Journal

LA English

CC 63-4 (Pharmaceuticals)

AB Because the flavonoid glycosides can be considered as suitable compds. for the quality assessment of Paliurus spina-christi Mill., a HPLC method for the sepn. and quantification of these compds. in methanolic exts. of the different plant parts (leaves, flowers, fruits) is described. The system used is a reversed-phase column and gradient elution with water-phosphoric acid-acetonitrile. The anal. showed the flavonoid contents of the

different plant parts and the different **compn.** of the flavonoid pattern. The highest flavonoid content was found in the leaves in June and July. No significant influence of growing site or year of harvesting on the flavonoid content was obsd. As quercetin 3-O-rhamnoglucoside 7-O-rhamnoside and rutin are the main flavonoid compds. present in all plant parts investigated, it is suggested that these compds. should be used for the quality assessment of Paliurus spina-christi.

ST Paliurus ext flavonoid quality

IT HPLC

Paliurus spina-christi

(quality assessment of Paliurus spina-christi exts.)

IT Flavonoids

RL: ANT (Analyte); BOC (Biological occurrence); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(quality assessment of Paliurus spina-christi exts.)

IT **153-18-4**, Rutin **21637-25-2**, Isoquercitrin 57526-56-4  
57528-70-8 89439-59-8 254730-13-7

RL: ANT (Analyte); BOC (Biological occurrence); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(quality assessment of Paliurus spina-christi exts.)

RE.CNT 18

RE

- (1) Bogdanova, V; Izvestija Akademii Nauk SSSR 1963, V28, P605
- (2) Brantner, A; Journal of Ethnopharmacology 1996, V52, P119 MEDLINE
- (3) Brantner, A; Planta Medica 1990, V56, P582
- (4) Dalakishvili, T; Khimiya Prirodnii Soedinenii 1985, V5, P322
- (5) Dallenbach-Tolke, K; Planta Medica 1987, V53, P189
- (6) Grlic, L; Enciklopedija Samoniklog Jestivog Bilja 1986, P165
- (7) Holzl, J; Deutsche Apotheker-Zeitung 1987, V127, P1227
- (8) Kustrak, D; Acta Pharmaceutica Jugoslovica 1990, V40, P551 HCAPLUS
- (9) Males, Z; Thesis University of Zagreb 1995
- (10) Polunin, O; Blumen am Mittelmeer 1981, P157
- (11) Schneider, G; Arzneidrogen 1990, P124
- (12) Teuscher, E; Pharmazeutische Biologie 3rd ed 1983, P248
- (13) Velcheva, M; Fitoterapia 1993, V64, P284 HCAPLUS
- (14) Velcheva, M; Rivista Italiana delle Sostanze Grasse 1986, V63, P213 HCAPLUS
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L116 ANSWER 5 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:204477 HCAPLUS

DN 130:322964

TI Bioactive flavonoidal constituents from Pithecellobium dulce (leaves)

AU Saxena, V. K.; Singhal, Madhuri

CS Natural Products Laboratory, Chemistry Dept., Dr. H. S. Gour University, Sagar, 470333, India

SO J. Inst. Chem. (India) (1998), 70(5), 168-171

CODEN: JOICA7; ISSN: 0020-3254

PB Institution of Chemists (India)

DT Journal

LA English

CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 5, 26, 63

AB The flavonol glycoside quercetin 3-O-glucoside (isoquercetrin) was isolated along with kaempferol from the leaves of Pithecellobium dulce. The constituents were been identified by spectral anal. and chem. degrdn. methods. The **combined** leaf ext. (of both compds.) possessed promising antifungal and antibacterial properties.

ST antimicrobial flavonoid Pithecellobium; quercetin glycoside Pithecellobium; kaempferol Pithecellobium

IT Pithecellobium dulce

*false hit*

*ORDER*

(bioactive flavonoids from *Pithecellobium dulce* leaves)

IT Flavonoids  
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)  
(bioactive flavonoids from *Pithecellobium dulce* leaves)

IT Antibacterial agents  
Fungicides  
(flavonoid ext. of *Pithecellobium dulce* leaves as)

IT 520-18-3, Kaempferol  
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)  
(bioactive flavonoids from *Pithecellobium dulce* leaves)

IT 21637-25-2, Isoquercitrin  
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence)  
(bioactive flavonoids from *Pithecellobium dulce* leaves)

IT 7251-37-8P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and NMR spectral properties of)

IT 117-39-5P, Quercetin  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and acetylation and spectral properties of)

IT 143724-69-0P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and spectral properties of)

RE.CNT 8

RE

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L116 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:171276 HCAPLUS

DN 131:582

TI Extracts and constituents of *Hypericum perforatum* inhibit the binding of various ligands to recombinant receptors expressed with the Semliki Forest virus system

AU Simmen, U.; Burkard, W.; Berger, K.; Schaffner, W.; Lundstrom, K.

CS Dept. of Pharmaceutical Biology, Institute of Pharmacy, University of Basel, Basel, CH-4057, Switz.

SO J. Recept. Signal Transduction Res. (1999), 19(1-4), 59-74

CODEN: JRETET; ISSN: 1079-9893

PB Marcel Dekker, Inc.

DT Journal

LA English

CC 1-11 (Pharmacology)

AB Exts., fractions and constituents of *Hypericum perforatum* were studied for in vitro receptor binding with various ligands to recombinant CNS receptors expressed with the Semliki Forest virus expression system. For this purpose we have prepd. membranes of CHO cells with high d. of several opioid, serotonin, estrogen, histamine, GABAA, neurokinin and metabotropic glutamate receptors, resp. A lipophilic *Hypericum* fraction revealed relatively potent inhibition to the binding of the .mu.-, .delta.-, and .kappa.-opioid and the 5-HT6 and 5-HT7 receptors. Moreover, *Hypericum* constituents such as the naphthodianthrone, hypericin and pseudohypericin, and the phloroglucinole hyperforin inhibited both binding to the opioid and serotonin receptors in the lower micromolar range. Estrogen binding was 50% inhibited by the biflavonoid I3,II8-biapigenin at micromolar concn. The lipophilic *Hypericum* fraction provided a less potent inhibition of the neurokinin-1 receptor binding compared to the



opioid and serotonin receptors. A total ethanolic *Hypericum* ext. potently inhibited GABAA binding at approx. 3 .mu.g/mL. This inhibition is however not specific to *Hypericum*, since exts. of plants like *Valeriana officinalis* and *Passiflora incarnata* showed similar inhibitions. Binding to neither histamine nor metabotropic glutamate receptors was affected by *Hypericum* exts. These results support the hypothesis that several active constituents of *Hypericum* might in a **synergistic** way contribute to its antidepressant effect in the central nervous system.

ST antidepressant *Hypericum* flavonoid opioid serotonin receptor

IT Estrogen receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(-.alpha.; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT 5-HT receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(5-HT1; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT 5-HT receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(5-HT6, 6; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT 5-HT receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(5-HT7; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT GABA receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(GABAA; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT Histamine receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(H1; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT Histamine receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(H2; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT Tachykinin receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(NK1; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT Antidepressants

Drug interactions

Passionflower (*Passiflora incarnata*)

St.-John's-wort (*Hypericum perforatum*)

Valerian (*Valeriana officinalis*)

(inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT Flavonoids

Natural products, pharmaceutical

Proanthocyanidins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT Ligands

RL: BPR (Biological process); BIOL (Biological study); PROC (Process)

(inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT 5-HT receptors

Histamine receptors

Opioid receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT Glutamate receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(metabotropic, mGluR2; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT Opioid receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(.kappa.-opioid; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT Opioid receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(.delta.-opioid; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT Opioid receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(.mu.-opioid; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

IT 117-39-5, Quercetin 153-18-4, Rutin 482-36-0,

Hyperosid 522-12-3, Quercitrin 548-04-9, Hypericin

1617-53-4, Amentoflavone 11079-53-1, Hyperforin 21637-25-2,

Isoquercitrin 55954-61-5, Pseudohypericin 101140-06-1,

I3,II8-Biapigenin

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of *Hypericum perforatum*)

RE.CNT 27

RE

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L116 ANSWER 7 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1998:538671 HCAPLUS

DN 129:254958

TI Antigenotoxicity of quercetin and its glycosides against benzo(a)pyrene-induced genotoxicity

AU Kim, Jeong Han; Heo, Moon Young

CS College Pharmacy, Kangwon National Univ., Chunchon, 200-701, S. Korea

SO Yakhak Hoechi (1998), 42(4), 414-421

CODEN: YAHOA3; ISSN: 0513-4234

PB Pharmaceutical Society of Korea

DT Journal

LA Korean

CC 1-12 (Pharmacology)

AB The suppressive effects of quercetin and its glycosides quercitrin (quercetin-3-rhamnoside), isoquercitrin (quercetin-3-glucoside), hyperin (quercetin-3-galactoside), and rutin (quercetin-3-rhamnosyl glucoside) on the genotoxicity of benzo(a)pyrene (BP) were studied in vitro using the sister chromatid exchange (SCE) test in mouse spleen lymphocytes and in vivo using the micronucleus test in mouse peripheral blood cells. The BP-induced SCEs in vitro were slightly decreased by the simultaneous cell treatment with quercetin and its glycosides. N-methyl-N-nitrosourea (MNU)-induced micronucleated reticulocyte (MNRETs) counts in vivo were decreased in dose-dependent manners by all 5 compds. tested. There were no differences between the quercetin aglycon and the glycosides in the suppressive effects. To elucidate the action mechanism of quercetin aglycon and its glycosides against the BP genotoxicity, the DNA binding assay with BP was evaluated. Quercetin aglycon and its glycosides inhibited the BP metab. in the presence of S-9 **mix** and decreased the BP binding to calf thymus DNA with the S-9 **mix**. The antigenotoxicity of quercetin and its glycosides against the BP genotoxicity may be due to decreased DNA binding of BP and inhibition of BP metab. Quercetin and its glycosides may act as antigenotoxic agents and may be useful as chemopreventive agents against polycyclic arom. hydrocarbons like BP.

ST benzopyrene genotoxicity quercetin glycoside prevention

IT Genotoxicity

(quercetin and its glycosides protective effects against benzo(a)pyrene-induced genotoxicity)

IT 50-32-8, Benzo[a]pyrene, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(quercetin and its glycosides protective effects against benzo(a)pyrene-induced genotoxicity)

IT 117-39-5, Quercetin 153-18-4, Rutin 482-36-0, Hyperin

522-12-3, Quercitrin 21637-25-2, Isoquercitrin

RL: BAC (Biological activity or effector, except adverse); BIOL

*False hit*

(Biological study)

(quercetin and its glycosides protective effects against benzo(a)pyrene-induced genotoxicity)

L116 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1998:45414 HCAPLUS

DN 128:162680

TI Brazilian medicinal plants: a rich source of immunomodulatory substances

AU Rossi-Bergmann, Bartira; Costa, Sonia S.; de Moraes, Vera Lucia G.

CS Instituto de Biofisica Carlos Chagas Filho, Universidade Federal do Rio de Janeiro, Rio de Janeiro, 21941-590, Brazil

SO Cienc. Cult. (Sao Paulo) (1997), 49(5/6), 395-401

CODEN: CCUPAD; ISSN: 0009-6725

PB Sociedade Brasileira para o Progresso da Ciencia

DT Journal

LA English

CC 1-7 (Pharmacology)

Section cross-reference(s): 11

AB Novel immunosuppressive and immunostimulatory substances are strongly needed to replace the existing toxic drugs currently used in the treatment of cancer, transplant rejection and autoimmune diseases or viral infections. We have tested the immunomodulatory activity of the crude ext. of several plant species used in the Brazilian popular medicine. We found that two Kalanchoe species - K. pinnata and K. brasiliensis - were very potent in inhibiting both T cell proliferation and the expression of surface IL-2R.alpha.. The inhibitory effect may be selective as it did not affect the activity of natural killer (NK) cells. The immunosuppressive effect of K. pinnata was tested in mice, and it proved to inhibit T cell-mediated responses, such as the **mixed** leukocyte reaction and the delayed-type hypersensitivity reaction. Other effects were also obsd., such as protection against cutaneous leishmaniasis and increased nitric oxide prodn., two situations in which immunosuppression may be involved. In the search for the active substance, we found that quercetin 3-O-.alpha.-arabinopyranosyl (1.fwdarw.2)-.alpha.-L-rhamnopyranoside, a major flavonoid present in the crude ext. of K. pinnata did not affect T cell proliferation. It is possible, however, that other minor flavonoids, such as quercitrin, afzelin and a flavone are the active substance(s). Contrary to the suppressive effect of Kalanchoe, we obsd. that the crude ext. of Chenopodium ambrosioides was strongly stimulatory to murine but not human lymphocytes, and that the stimulatory substance was present in a protein-enriched fraction. These findings which were only attained due to the collaboration between interdisciplinary groups, strongly emphasize that the Brazilian flora may serve as a rich source of known and novel immunomodulatory substances.

ST immunomodulator medicinal plant Brazil; flavonoid immunomodulator medicinal plant Brazil

IT Chenopodium ambrosioides

Immunomodulators

Immunostimulants

Immunosuppressants

Kalanchoe brasiliensis

Kalanchoe pinnata

Leishmanicides

(medicinal plants of Brazil as source of immunomodulatory substances)

IT Flavones

Flavonoids

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)

(medicinal plants of Brazil as source of immunomodulatory substances)

IT Plant (Embryophyta)

(medicinal, of Brazil; medicinal plants of Brazil as source of immunomodulatory substances)

IT 482-39-3, Afzelin 522-12-3, Quercitrin 21637-25-2,

Isoquercitrin 60048-92-2 78468-41-4 104683-55-8 125140-14-9

125140-17-2 160472-99-1, Kalambroside A 160473-00-7, Kalambroside B

no composition

160473-01-8, Kalambroside C 203067-24-7, Kalambroside D  
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)  
 (medicinal plants of Brazil as source of immunomodulatory substances)

L116 ANSWER 9 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1997:399608 HCAPLUS

DN 127:39481

TI Cosmetics containing POV elevation inhibitors and lipase inhibitors

IN Mizuno, Takashi; Uchino, Keiji; Miyashita, Rumiko

PA Nippon Flour Mills Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-48

ICS A61K007-00

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09118611	A2	19970506	JP 1995-277404	19951025 <--
OS	MARPAT 127:39481				
AB	The cosmetics contain POV (peroxide value) elevation inhibitors, e.g. org. solvent exts. of bran, germ, or powd. cereals, and lipase inhibitors, e.g. hinokitiol, oleanolic acid, ursonic acid, flavonoids, or their glycosides. The cosmetics prevent the degradn. or oxidn. of fats/oils in the cosmetics and sebum and prevent acne and rough skin. Lard contg. 5% hexane ext. of bran was heated at 110.degree. to show POV 16.6 mgequiv/kg 72 h later, vs. 39.4 mgequiv/kg, for a control without the ext. A shampoo contg. 0.5 wt.% wheat bran ext. and 0.1 wt.% hinokitiol was <b>formulated</b> .				
ST	lipid peroxidn inhibitor lipase inhibitor cosmetic; bran ext lipase inhibitor hinokitiol cosmetic; germ ext lipase inhibitor hinokitiol cosmetic; antiacne cosmetic lipid peroxidn inhibitor				
IT	Cosmetics (antiacne; cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)				
IT	Acne Lipid peroxidation Shampoos Skin cleansers Skin conditioners (cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)				
IT	Flavonoid glycosides Flavonoids RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)				
IT	Bran Wheat flour Wheat germ (exts.; cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)				
IT	Cereal (grain) (flours, exts.; cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)				
IT	Hair conditioners (rinses; cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)				
IT	Hair conditioners (tonics; cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)				
IT	480-41-1, Naringenin 499-44-5, Hinokitiol 508-02-1, Oleanolic acid 520-26-3, Hesperidin 520-33-2, Hesperetin 529-55-5, Naringenin 7-glucoside 578-74-5 5373-11-5, Luteolin 7-glucoside 6246-46-4, Ursonic acid 6920-38-3, Luteolin 4'-glucoside 17650-84-9, Kaempferol				

*false hit*

3-rutinoside **21637-25-2**, Isoquercitrin 26544-34-3, Apiin  
52187-80-1, Luteolin 3',7-diglucoside 69306-85-0  
RL: BAC (Biological activity or effector, except adverse); BUU (Biological  
use, unclassified); BIOL (Biological study); USES (Uses)  
(cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)  
IT 9001-62-1, Lipase  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)

L116 ANSWER 10 OF 30 HCAPLUS COPYRIGHT 2000 ACS  
AN 1996:619394 HCAPLUS  
DN 125:284526  
TI Standardization of the birch leaf  
AU Carnat, A.; Lacouture, L.; Fraisse, D.; Lamaison, J.-L.  
CS Lab. Pharm. Phytotherapie, Fac. Pharmacie, Clermont-Ferrand, F 63000, Fr.  
SO Ann. Pharm. Fr. (1996), 54(5), 231-235  
CODEN: APFRAD; ISSN: 0003-4509  
DT Journal  
LA French  
CC **63-4** (Pharmaceuticals)  
AB The dried leaves of *Betula pendula* and *B. pubescens* had a similar  
flavonoid pattern. The mean concns. of the principal flavonoid compds. in  
*B. pendula* and *B. pubescens*, resp., were: total flavonoids 3.29 and 2.77%;  
hyperoside 0.80 and 0.77%; avicularin (two forms) 0.57 and 0.26%;  
galactosyl-3-myricetol 0.37 and 0.18%; glucuronyl-3-quercetol 0.25 and  
0.36%; quercitrin 0.14 and 0.12%. The flavonoid levels were higher in  
young than in old leaves of *B. pendula*. Pharmacopeial specifications are  
proposed for a revision of the monograph "*Betulae folium*".  
ST birch leaf flavonoid pharmacopeia  
IT Flavonoids  
RL: BOC (Biological occurrence); BIOL (Biological study); OCCU  
(Occurrence)  
(birch (*Betula*) leaf content of)  
IT Birch  
(flavonoid **compn.** of birch leaf)  
IT Birch  
(*Betula pendula*, flavonoid **compn.** of leaf of)  
IT Birch  
(*Betula pubescens*, flavonoid **compn.** of leaf of)  
IT Pharmacopeias  
(French, flavonoid **compn.** of birch leaf in relation to  
*Betulae folium* monograph of)  
IT **153-18-4**, Rutoside 482-36-0, Hyperoside **522-12-3**,  
Quercitrin 572-30-5, Avicularin 15648-86-9, Myricetin 3-galactoside  
**21637-25-2**, Isoquercitrin 22688-79-5, Quercetin 3-glucuronide  
RL: BOC (Biological occurrence); BIOL (Biological study); OCCU  
(Occurrence)  
(birch (*Betula*) leaf content of)

L116 ANSWER 11 OF 30 HCAPLUS COPYRIGHT 2000 ACS  
AN 1996:449708 HCAPLUS  
DN 125:95577  
TI Cosmetic or dermatologic **compositions** containing cinnamic acid  
derivatives and flavonoid glycosides  
IN Staeb, Franz; Landenzoerfer, Ghita  
PA Beiersdorf A.-G., Germany  
SO Eur. Pat. Appl., 18 pp.  
CODEN: EPXXDW  
DT Patent  
LA German  
IC ICM A61K007-48  
ICS A61K007-42; A61K031-70  
CC **62-4** (Essential Oils and Cosmetics)  
Section cross-reference(s): **63**  
FAN.CNT 1

False hit

✓

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 716847	A1	19960619	EP 1995-118438	19951123 <--
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
	DE 4444238	A1	19960620	DE 1994-4444238	19941213 <--
	JP 08259421	A2	19961008	JP 1995-345018	19951208 <--
	WO 9618379	A1	19960620	WO 1995-EP4905	19951212 <--
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	WO 9618380	A1	19960620	WO 1995-EP4906	19951212 <--
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	WO 9618381	A1	19960620	WO 1995-EP4907	19951212 <--
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	WO 9618382	A1	19960620	WO 1995-EP4908	19951212 <--
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 797427	A1	19971001	EP 1995-942129	19951212 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	EP 799020	A1	19971008	EP 1995-941094	19951212 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	EP 799022	A1	19971008	EP 1995-942128	19951212 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	EP 799023	A1	19971008	EP 1995-942130	19951212 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	JP 10510522	T2	19981013	JP 1995-518256	19951212 <--
	JP 10510523	T2	19981013	JP 1995-518257	19951212 <--
	JP 10510802	T2	19981020	JP 1995-518258	19951212 <--
	JP 10510803	T2	19981020	JP 1995-518259	19951212 <--
	US 5952373	A	19990914	US 1997-849523	19970908 <--
PRAI	DE 1994-4444238		19941213 <--		
	WO 1995-EP4905		19951212 <--		
	WO 1995-EP4906		19951212 <--		
	WO 1995-EP4907		19951212 <--		
	WO 1995-EP4908		19951212 <--		
OS	MARPAT 125:95577				
AB	Topical <b>compns.</b> contg. a cis- or trans-dihydroxycinnamic acid deriv. and a flavonoid glycoside show antioxidant activity and are useful in treatment of skin aging and dermatoses, including polymorphic photodermatosis, and have low stinging potential. Thus, a water-in-oil emulsion cream contained paraffin oil 10.00, petrolatum 4.00, lanolin alcs. 1.00, ethoxylated hydrogenated castor oil 3.00, Al stearate 0.40, .alpha.-glucosylrutin 0.50, ferulic acid 0.50, glycerin 2.00, preservative, perfume, and water to 100.00 wt.%. cinnamate flavonoid glycoside cosmetic antioxidant; dermatosis antioxidant ferulate rutin glycoside				
IT	Antioxidants Cosmetics Skin, disease Sunscreens (cosmetic or dermatol. <b>compns.</b> contg. cinnamic acid derivs. and flavonoid glycosides)				
IT	Skin, disease (aging, cosmetic or dermatol. <b>compns.</b> contg. cinnamic acid derivs. and flavonoid glycosides)				
IT	Glycosides RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (flavonoid, cosmetic or dermatol. <b>compns.</b> contg. cinnamic acid derivs. and flavonoid glycosides)				
IT	331-39-5, Caffeic acid 331-39-5D, Caffeic acid, alkyl esters 522-12-3D, Quercitrin, .alpha.-glucosyl derivs. 1135-24-6, Ferulic acid 1135-24-6D, Ferulic acid, alkyl esters 5466-77-3 17912-87-7D, Myricitrin, .alpha.-glucosyl derivs. 21637-25-2D,				

Isoquercitrin, .alpha.-glucosyl derivs. 130603-71-3,  
.alpha.-Glucosylrutin

RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(cosmetic or dermatol. **compns.** contg. cinnamic acid derivs.  
and flavonoid glycosides)

L116 ANSWER 12 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1996:137989 HCAPLUS

DN 124:185189

TI Mucopolysaccharide fragmentation inhibitors and cosmetics containing them

IN Suetsugu, Kazuhiro; Hamai, Kaori

PA Narisu Cosmetic Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

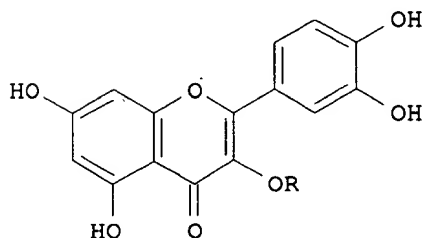
IC ICM A61K007-48

ICS A61K007-00; A61K031-70; A61K035-78

CC 62-4 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07309739	A2	19951128	JP 1994-131058	19940520 <--
OS	MARPAT 124:185189				
GI					



AB Skin aging-preventing cosmetics contain mucopolysaccharide fragmentation inhibitors comprising quercetins I (R = mono- or oligosaccharide residue). Isoquercitrin inhibited 45.2 and 76.0% fragmentation of hyaluronic acid caused by ascorbic acid-Fe and H2O2-Fe, resp. A lotion was **formulated** from mucopolysaccharide fragmentation inhibitor 0.2, glycerin 5.0, polyoxyethylene sorbitan monolaurate (20 E.O.) 1.5, EtOH 10.0, antiseptics, perfumes, and H2O to 100 wt.%.

ST cosmetic mucopolysaccharide fragmentation inhibitor quercetin

IT Mucopolysaccharides, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(skin aging-preventing cosmetics contg. mucopolysaccharide fragmentation inhibitors comprising quercetins)

IT Cosmetics

(antiaging, skin aging-preventing cosmetics contg. mucopolysaccharide fragmentation inhibitors comprising quercetins)

IT 153-18-4, Rutin 153-18-4D, Rutin, glucosyl derivs.

482-36-0, Hyperoside 522-12-3, Quercitrin 572-30-5, Avicularin

21637-25-2, Isoquercitrin 23284-18-6, Peltatoside

RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(skin aging-preventing cosmetics contg. mucopolysaccharide fragmentation inhibitors comprising quercetins)

IT 9004-61-9, Hyaluronic acid

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL



(Biological study); PROC (Process)  
 (skin aging-preventing cosmetics contg. mucopolysaccharide  
 fragmentation inhibitors comprising quercetins)

L116 ANSWER 13 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1996:58348 HCAPLUS

DN 124:106700

TI Method for treatment of osteoporosis with a flavonol aglycon glycoside in  
**combination** with nutritional calcium

IN Sawruk, Stephen

PA Biodyn Medical Research, Inc., USA

SO U.S., 4 pp. Cont.-in-part of U.S. Ser. No. 897,003, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM A01N043-04

ICS A61K031-715; C07H015-00; C07G003-00

NCL 424535000

CC 1-12 (Pharmacology)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5478579	A	19951226	US 1993-95738	19930721 <--
PRAI	US 1991-651189		19910206 <--		
	US 1992-897003		19920601 <--		
AB	A method for orally inducing and enhancing the absorption of calcium into mammalian bone tissue comprises the administration of an ED of a flavonol aglycon glycoside in <b>combination</b> with nutritional calcium. Various herbal sources are included. Potassium gluconate may be added to the system as an adjuvant.				
ST	flavonol aglycon glycoside calcium osteoporosis; pharmaceutical flavonol aglycon glycoside calcium osteoporosis				
IT	Anserinae Arnica montana Bone Equisetum arvense Osteoporosis Pharmaceutical dosage forms Prunus spinosa Rhododendron ferrugineum Viola tricolor (flavonol aglycon glycoside in <b>combination</b> with nutritional calcium for treatment of osteoporosis)				
IT	Aglycons RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (flavonol aglycon glycoside in <b>combination</b> with nutritional calcium for treatment of osteoporosis)				
IT	Primrose (Primula elatior, flavonol aglycon glycoside in <b>combination</b> with nutritional calcium for treatment of osteoporosis)				
IT	Elder (Sambucus nigra, flavonol aglycon glycoside in <b>combination</b> with nutritional calcium for treatment of osteoporosis)				
IT	Linden (Tilia cordata, flavonol aglycon glycoside in <b>combination</b> with nutritional calcium for treatment of osteoporosis)				
IT	Glycosides RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (flavonoid, flavonol aglycon glycoside in <b>combination</b> with nutritional calcium for treatment of osteoporosis)				
IT	Pharmaceutical dosage forms (tablets, flavonol aglycon glycoside in <b>combination</b> with nutritional calcium for treatment of osteoporosis)				
IT	7440-70-2, Calcium, biological studies RL: BAC (Biological activity or effector, except adverse); BPR (Biological				

process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(flavonol aglycon glycoside in **combination** with nutritional calcium for treatment of osteoporosis)

IT **21637-25-2**, Isoquercitrin

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(flavonol aglycon glycoside in **combination** with nutritional calcium for treatment of osteoporosis)

IT **117-39-5**, Quercetin **299-27-4**, Potassium gluconate

**480-19-3**, Isorhamnetin **520-18-3**, Kaempferol

**529-44-2**, Myricetin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(flavonol aglycon glycoside in **combination** with nutritional calcium for treatment of osteoporosis)

L116 ANSWER 14 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1995:498417 HCAPLUS

DN 122:265924

TI Preparation of quercetin 3-O-glycosides and method for modification of water-sparingly soluble flavonoid using the glycosides

IN Washino, Ken; Iwata, Mitsuhiro

PA Saneigen Efu Efu Ai Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

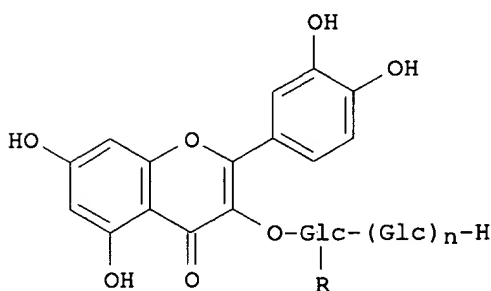
IC ICM C07H017-07

CC 33-3 (Carbohydrates)

Section cross-reference(s): 26, 62, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07010898	A2	19950113	JP 1993-180942	19930624 <--
GI					



AB Quercetin 3-O-glycosides (I; Glc = glucose; n.gtoreq.1 integer) are obtained by glycosidation of quercetin 3-monoglucoside and/or rutin in the presence of glucosidase or transglucosidase. A water-sparingly sol. flavonoid (e.g. rutin, quercetin, isoquercitrin, morin, myricitrin, and myricetin) is modified to improve the soly. by drying a soln. contg. a water-sparingly sol. flavonoid and 1 or .gtoreq.2 of the quercetin 3-O-glycosides I. The said soln. is obtained by dissolving a solid water-sparingly flavonoid in a soln. of 1 or 2 of the quercetin 3-O-glycosides in 1 or .gtoreq.2 solvents selected from C1-4 aliph. alcs., an aq. medium, and water. This modification markedly improves the soly. of a water-sparingly flavonoid without changing the structure and effectiveness of the flavonoid which is useful as a discoloration inhibitor, an inhibitor of flavor change, and an antioxidant for foods, a UV-absorbing agent for cosmetics, and a plant growth regulator in agriculture. Thus, 500 g rutin was suspended in 100 L H2O and 100 g naringinase was added followed by heating the mixt. (pH 7) at

50.degree. for 5 h, concg. the reaction **mixt.** to 50 L, cooling the conc., and filtering the pptd. quercetin 3-O-glycosides. Water (100 L) was added to the glycosides and then 800 g corn starch was added followed by homogenizing the **mixt.**, adding 200 mL cyclodextrin glucanotransferase (CGTase), and heating the resulting **mixt.** at 55.degree. and pH 6.8 for 12 h. The reaction soln. was passed to an adsorption column (Diaion HP-21) to adsorb the quercetin 3-O-glycoside and the column was eluted with 50% (vol/vol) aq. MeOH to give, after concn. to dryness, 550 g solid contg. quercetin 3-O-glycoside I (R = H; n = 1, 2, 3, 4, 5, 6, 7, .gtoreq.8) in 23, 17, 12, 9, 7, 4, 2, and 2 mol%, resp. For an example of the flavonoid modification, 100 g rutin and the latter glycoside (15 g) were suspended in hot water 1.5 L (80.degree.) and 8.5 g NaOH flakes were added portionwise to give a homogeneous soln. which was made pH 6.5 by adding 20 wt.% H2SO4. The soln. was spray-dried to give a yellow solid (100 g) which (5 g) was immediately dissolved to give a clear soln. when 100 mL water was added and stirred at 20.degree. for 1 h. For comparison, when a **mixt.** of 4.3 g rutin and the glycoside 0.7 g was added to 100 mL water and stirred at 20.degree. for 1 h, it did not become a homogeneous clear soln. and 4.2 g rutin was recovered by filtering the suspension.

- ST quercetin glycoside prepn; water sparingly soluble flavonoid solubilization
- IT Flavonoids  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(prepn. of quercetin 3-O-glycosides and modification and water-solubilization of water-sparingly sol. flavonoids)
- IT 9030-09-5, Cyclodextrin glucanotransferase  
RL: CAT (Catalyst use); USES (Uses)  
(catalyst enzymic transglycosidation of starch with quercetin glucoside in prepn. of quercetin 3-O-glucosides)
- IT 9005-25-8, Starch, reactions  
RL: RCT (Reactant)  
(corn; enzymic transglycosidation with quercetin glucoside in prepn. of quercetin 3-O-glucosides)
- IT 9068-31-9, Naringinase  
RL: CAT (Catalyst use); USES (Uses)  
(enzymic hydrolysis by naringinase in prepn. of quercetin 3-O-glucosides)
- IT 153-18-4, Rutin  
RL: RCT (Reactant)  
(enzymic hydrolysis by naringinase in prepn. of quercetin 3-O-glucosides)
- IT 482-35-9P  
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation)  
(prepn. and enzymic transglycosidation with starch in prepn. of quercetin 3-O-glucosides)
- IT 27459-71-8P 27859-61-6P 162342-36-1P 162381-35-3P 162381-36-4P 162381-37-5P 162393-05-7P 162429-62-1P  
RL: BPN (Biosynthetic preparation); MOA (Modifier or additive use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of quercetin 3-O-glycosides and modification and water-solubilization of water-sparingly sol. flavonoids)
- IT 117-39-5, Quercetin 480-16-0, Morin 529-44-2, Myricetin 17912-87-7, Myricitrin 21637-25-2, Isoquercitrin  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(water-solubilization with quercetin glucosides)

L116 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1995:341162 HCAPLUS

DN 122:142563

TI Pharmaceutical **compositions** containing flavonoids as chondroprotective agents

IN Watanabe, Koju; Niimura, Koichi; Umekawa, Kiyonori

PA Kureha Chemical Industry Co., Ltd., Japan

SO Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM A61K031-365

ICS A61K031-70

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 633022	A2	19950111	EP 1994-109872	19940627 <--
	EP 633022	A3	19950802		
	EP 633022	B1	19970219		
	R: CH, DE, FR, GB, IT, LI, SE				
	JP 07025761	A2	19950127	JP 1993-194182	19930709 <--
	CA 2126513	AA	19950110	CA 1994-2126513	19940622 <--
	EP 719554	A1	19960703	EP 1996-103715	19940627 <--
	R: CH, DE, FR, GB, IT, LI, SE				
	AU 9467339	A1	19950119	AU 1994-67339	19940707 <--
	AU 659579	B2	19950518		
	CN 1100633	A	19950329	CN 1994-108234	19940708 <--
	US 5650433	A	19970722	US 1995-519179	19950825 <--
PRAI	JP 1993-194182		19930709 <--		
	EP 1994-109872		19940627 <--		
	US 1994-271951		19940708 <--		

OS MARPAT 122:142563

AB Pharmaceutical **compns.** contg. flavonoids as chondroprotective agents are prepd. The above compds. strongly inhibit proteoglycan depletion from the chondrocyte matrix and exhibit a function to protect cartilage, and thus, are extremely effective for the treatment of arthropathy. The amt. of glycosaminoglycans (major constituent of proteoglycans) in cultured chondrocytes in presence of 0.1.mu.g/mL phorbol myristate acetate and 100 .mu.M apigenin (I) was 33.3 as compared with 16.5 .mu.g/mL for controls contg. no I. Pharmaceutical granules contained I 20, lactose 68, and hydroxypropyl cellulose 12 parts.

ST pharmaceutical **compn** flavonoid chondroprotective agent; apigenin pharmaceutical granule proteoglycan chondrocyte protection

IT Chondrocyte

(pharmaceutical **compns.** contg. flavonoids as chondroprotective agents)

IT Flavonoids

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(pharmaceutical **compns.** contg. flavonoids as chondroprotective agents)

IT Proteoglycans, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(pharmaceutical **compns.** contg. flavonoids as chondroprotective agents)

IT Glycosides

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(flavonoid, hydroxy methoxy oxo, pharmaceutical **compns.** contg. flavonoids as chondroprotective agents)

IT Glycosides

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(flavonoid, hydroxy oxo, pharmaceutical **compns.** contg. flavonoids as chondroprotective agents)

IT Glycosides

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(flavonoid, oxo, pharmaceutical **compns.** contg. flavonoids as chondroprotective agents)

IT Pharmaceutical dosage forms

(granules, pharmaceutical **compns.** contg. flavonoids as

chondroprotective agents)

IT 50-99-7D, GLucose, compds. with flavonoids 57-48-7D, Fructose, compds. with flavonoids 58-86-6D, Xylose, compds. with flavonoids 59-23-4D, Galactose, compds. with flavonoids 90-18-6, Quercetagenin 90-19-7, Rhamnetin 90-74-4D, Rutinose, compds. with flavonoids **117-39-5**, Quercetin 147-81-9D, Arabinose, compds. with flavonoids **153-18-4**, Rutin 301-19-9, Robinin 480-10-4, Astragalin 480-15-9, Datisetin 480-16-0, Morin 480-18-2, Taxifolin **480-19-3**, Isorhamnetin 480-20-6, Aromadendrin 480-35-3, Eriodictin 480-36-4, Linarin 480-39-7, Pinocembrin **480-40-0**, Chrysin 480-41-1, Naringenin **480-44-4**, Acacetin 482-38-2, Kaempferitrin 491-67-8, Baicalein **491-70-3**, Luteolin **520-18-3**, Kaempferol 520-26-3 520-27-4, Diosmin **520-33-2** 520-34-3, Diosmetin **520-36-5**, Apigenin **522-12-3**, Quercitrin 525-82-6, Flavone 528-48-3, Fisetin 529-39-5, Sakuranin **529-44-2**, Myricetin 529-55-5, Prunin 548-58-3, Primetin 548-75-4, Quercetagenin 548-82-3, Pinobanksin **552-58-9**, Eriodictyol 552-74-9D, Robinobiose, compds. with flavonoids 572-31-6, Engelitin 578-74-5, Cosmosiin 1329-10-8, Toringin 2957-21-3, Sakuranetin 3615-41-6D, Rhamnose, compds. with flavonoids 5373-11-5, Glucoluteolin 10236-47-2, Naringin 17912-87-7, Myricitrin 20344-46-1, Galuteolin 20725-03-5, Fustin **21637-25-2**, Isoquercitrin 23627-87-4, Trifolin 26544-34-3, Apiin 27200-12-0, Ampelopsin 28757-27-9, Salipurpin 29838-67-3, Astilbin 139759-42-5D, compds. with flavonoids  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pharmaceutical **compns.** contg. flavonoids as chondroprotective agents)

L116 ANSWER 16 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1995:79154 HCAPLUS

DN 122:142085

TI Dentifrices containing flavones

IN Okada, Toshimochi; Yamazaki, Yoji

PA Lion Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-16

CC 62-7 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06183940	A2	19940705	JP 1992-356340	19921221 <--
AB	Dentifrices comprise a collagenase-inhibiting flavone deriv. selected from isoquercitrin, miricitrin, and isorhamnetin for treatment and prevention of periodontal diseases. Dentifrices contg. the flavones are <b>formulated</b> .				
ST	dentifrice flavone deriv collagenase inhibitor; isoquercitrin dentifrice; miricitrin dentifrice; isorhamnetin dentifrice				
IT	Dentifrices (dentifrices contg. flavones)				
IT	Periodontium (disease, dentifrices contg. flavones)				
IT	<b>480-19-3</b> , Isorhamnetin <b>21637-25-2</b> , Isoquercitrin 88232-62-6, Miricitrin RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (dentifrices contg. flavones)				
IT	9001-12-1, Collagenase RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (inhibitors; dentifrices contg. flavones)				

L116 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1994:504071 HCAPLUS  
DN 121:104071  
TI Chemical study on the phenolic compounds from *Gleditsia japonica*  
AU Hwang, Yoon Jeong; Lee, Seung Ho; Ryu, Shi Yong; Ahn, Jong Woong; Kim, Eun  
Joo; Ro, Jai Seup; Lee, Kyong Soon  
CS Dep. Pharm., Chung Buk Natl. Univ., Cheongju, 360-763, S. Korea  
SO Saengyak Hakhoechi (1994), 25(1), 11-19  
CODEN: SYHJAM; ISSN: 0253-3073  
DT Journal  
LA Korean  
CC 11-1 (Plant Biochemistry)  
Section cross-reference(s): 63  
AB *Gleditsia japonica* var. *koraiensis* (Leguminosae) is commonly distributed in Korea and has been used as a folk medicine in the treatment of bronchitis, neoplasm and blennorrhagia in the Orient. The aq. acetone ext. of the leaves of *G. japonica* was subjected to a **combination** of Sephadex LH-20, Cosmosil 75C18-OPN, TSK-gel Toyopearl HW 40F, Avicel cellulose, and MCI-gel CHP 20P chromatogs. with various solvent systems. Twelve compds. were isolated and confirmed to be vitexin, isovitexin, orientin, isoorientin, 4-caffeoylquinic acid, 5-caffeoyl quinic acid, 3,5-dicaffeoyl quinic acid, 4,5-dicaffeoyl quinic acid, caffeic acid, quercetin, isoquercitrin and luteolin-7-O-glucoside, on the basis of chem. and spectroscopic evidences.  
ST phenolic compd *Gleditsia*  
IT Phenols, biological studies  
RL: BIOL (Biological study)  
(from *Gleditsia japonica koraiensis*)  
IT Honey locust  
(*G. japonica koraiensis*, phenolic compds. from)  
IT 117-39-5, Quercetin 331-39-5, Caffeic acid 905-99-7,  
4-Caffeoylquinic acid 906-33-2, 5-Caffeoyl quinic acid 2450-53-5,  
3,5-Dicaffeoyl quinic acid 3681-93-4, Vitexin 4261-42-1, Isoorientin  
5373-11-5, Luteolin-7-O-glucoside 21637-25-2, Isoquercitrin  
28608-75-5, Orientin 38953-85-4, Isoviteixin 57378-72-0, 4,5-Dicaffeoyl  
quinic acid  
RL: BIOL (Biological study)  
(from *Gleditsia japonica koraiensis*)

L116 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1994:473085 HCAPLUS  
DN 121:73085  
TI Inhibitory effects of plant polyphenols on rat liver glutathione  
S-transferases  
AU Zhang, Kai; Das, Nagaratnam P.  
CS Fac. Med., National Univ. Singapore, Singapore, 0511, Singapore  
SO Biochem. Pharmacol. (1994), 47(11), 2063-8  
CODEN: BCPA6; ISSN: 0006-2952  
DT Journal  
LA English  
CC 1-3 (Pharmacology)  
AB Several novel naturally occurring flavonoids and other polyphenols exerted varying degrees of concn.-dependent inhibition on uncharacterized rat liver glutathione S-transferase (EC 2.5.1.18, GST) isoforms. The order of inhibitory potencies of the five most potent polyphenols was tannic acid > 2-hydroxy chalcone > butein > morin > quercetin, and their IC50 values were 1.044, 6.758, 9.033, 13,710 and 18.732 .mu.M, resp. Their inhibitions were reversible, as indicated by dialysis expts. The optimum pH for the inhibitions by four of the compds. (tannic acid, butein, 2-hydroxyl chalcone and morin) was in the range of pH 6.0 to 6.5, but for quercetin the optimum pH was 8.0. These potent inhibitors possess one or more of the following chem. structural features: (a) polyhydroxylation substitutions, (b) absence of a sugar moiety, (c) for the chalcones, the presence of an open C-ring and hydroxylation at either the C-2 or C-3 position, (d) for the flavonoids, the attachment of the B-ring to C-2, and (e) a double bond between C-2 and C-3. Butein exhibited a non-competitive inhibition toward both glutathione (GSH) and 1-chloro-2,4-dinitrobenzene

- (CDNB). Interestingly, tannic acid showed a non-competitive inhibition toward CDNB but a competitive inhibition toward GSH. The inhibitory potency of tannic acid on rat liver GSTs was concn.- and substrate-dependent. Using CDNB, p-nitrobenzyl chloride, 4-nitropyridine-N-oxide, and ethacrynic acid as substrates, the IC50 values for tannic acid were 1.044, 11.151, 20.206, and 57.664  $\mu$ M, resp.
- ST polyphenol liver glutathione transferase inhibition structure; flavonoid liver glutathione transferase inhibition structure; plant polyphenol liver glutathione transferase inhibition
- IT Liver, **composition**  
(glutathione transferase of, by plant polyphenols inhibition of, structure in relation to)
- IT Tannins  
RL: BIOL (Biological study)  
(liver glutathione S-transferase inhibition by, structure in relation to)
- IT Flavonoids  
RL: BIOL (Biological study)  
(liver glutathione transferase inhibition by, structure in relation to)
- IT Molecular structure-biological activity relationship  
(glutathione transferase-inhibiting, of plant polyphenols)
- IT Phenols, biological studies  
RL: BIOL (Biological study)  
(polyhydric, plant, liver glutathione transferase inhibition by, structure in relation to)
- IT 58-54-8, Ethacrynic acid 60-81-1, Phloridzin 60-82-2, Phloretin 91-64-5, Coumarin 94-41-7, Chalcone **117-39-5**, Quercetin **153-18-4**, Rutin **154-23-4**, Catechin 476-66-4, Ellagic acid 480-16-0, Morin **480-19-3**, Isorhamnetin 480-41-1, Naringenin **480-44-4**, Acacetin 486-66-8, Daidzein 487-52-5, Butein 491-80-5, Biochanin A 520-27-4, Diosmin 520-34-3, Diosmetin **520-36-5**, Apigenin **522-12-3**, Quercitrin **529-44-2**, Myricetin 644-78-0, 2-Hydroxychalcone 10236-47-2, Naringin 17912-87-7, Myricitrin **21637-25-2**, Isoquercitrin 26544-34-3, Apiin  
RL: BIOL (Biological study)  
(liver glutathione S-transferase inhibition by, structure in relation to)
- IT 50812-37-8, Glutathione S-transferase  
RL: BIOL (Biological study)  
(liver, by plant polyphenols inhibition of, structure in relation to)

L116 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1993:513391 HCAPLUS

DN 119:113391

TI Agrimony: Comparative study on Agrimonia eupatoria L. and Agrimonia procera Wallr

AU Carnat, A.; Lamaison, J. L.; Petitjean-Freytet, C.

CS Fac. Pharm., Univ. Auvergne, Clermont-Ferrand, F 63000, Fr.

SO Plant. Med. Phytother. (1991), 25(4), 202-11

CODEN: PLMPA9; ISSN: 0032-0994

DT Journal

LA French

CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 63

AB Dried flowering tops of Agrimonia eupatoria and A. procera were distinguished by their botanical characters and by their chem.

**compn.** The levels of principal constituents av., resp.: tannins 7.4 and 9.5, total flavonoids 0.90 and 0.72, rutin 0.17 and 0.16, hyperoside 0.37 and 0.18, isoquercitrin 0.21 and 0.13, quercitrin 0.05 and 0, and ash 7.3 and 6.5%. Data are compared with those for 11 com. lots of agrimony. The possibility of substituting A. procera flowering tops for those of A. eupatoria, accepted in the French Pharmacopeia, is discussed.

ST agrimony flavonoid tannin mineral element

IT Flavonoids

Mineral elements

*false hit*

Tannins  
 RL: BIOL (Biological study)  
 (of Agrimonia eupatoria and A. procera)

IT Glycosides  
 RL: BIOL (Biological study)  
 (flavonoid, of Agrimonia eupatoria and A. procera)

IT Agrimony  
 (A. eupatoria, botanical characteristics and chem. **compn.** of)

IT Agrimony  
 (A. procera, botanical characteristics and chem. **compn.** of)

IT **153-18-4** 482-36-0, Hyperoside **522-12-3** 578-74-5  
 5373-11-5, Luteolin 7-glucoside **21637-25-2**, Isoquercitrin  
 RL: BIOL (Biological study)  
 (of Agrimonia eupatoria and A. procera)

L116 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1993:183102 HCAPLUS

DN 118:183102

TI Effects of extracts of Zanthoxylum fruit and their constituents on spontaneous beating rate of myocardial cell sheets in culture

AU Huang, Xin Li; Kakiuchi, Nobuko; Che, Qing Ming; Huang, Sheng Lun; Hattori, Masao; Namba, Tsuneo

CS Res. Inst. Wakan-Yaku, Toyama Med. Pharm. Univ., Toyama, 930-01, Japan

SO Phytother. Res. (1993), 7(1), 41-48  
 CODEN: PHYREH; ISSN: 0951-418X

DT Journal

LA English

CC 1-8 (Pharmacology)

AB In the course of our studies on naturally occurring cardioactive agents, we investigated the effects of water and methanol exts. of a Chinese crude drug Huajiao (the dried fruit of Zanthoxylum bungeanum) on the spontaneous beating rate (BR) of embryonic mouse myocardial cell sheets in culture. Both exts. significantly increased the BR. Through bioassay directed fractionation of the exts., hydroxy-.beta.-sanshool, xanthoxylin and two quercetin glycosides, hyperin and quercitrin, were found to increase the BR in a std. medium (2.1 mM Ca<sup>2+</sup>). In a low Ca<sup>2+</sup> medium (0.5 mM Ca<sup>2+</sup>), these compds. suppressed the decrease of BR, which was induced by low Ca<sup>2+</sup>. Of 16 flavonoids related in structure to hyperin (4) and quercitrin (6), quercetin, isoquercitrin, rutin, myricetin and myricitrin also increased the BR in the std. medium, while kaempferol and luteorin decreased the BR in the std. medium. When compared with control, hydroxy-.beta.-sanshool and xanthoxylin stimulated 13-15 fold calcium uptake of the cultured myocardial cells, which might have caused the pos. chronotropic effect. Hyperin and quercitrin did not affect calcium uptake of the myocardial cells, Na<sup>+</sup>-K<sup>+</sup> ATPase activity or Ca<sup>2+</sup>-ATPase activity of sarcoplasmic reticulum.

ST cardiogenic flavonoid structure Zanthoxylum fruit; Huajiao cardiogenic flavonoid structure

IT Heart, **composition**  
 (ATPase activity of and calcium uptake by, flavonoids from Zanthoxylum fruit effects on)

IT Zanthoxylum bungei  
 (flavonoids from fruit of, pos. chronotropic effect of, in heart, structure in relation to)

IT Pharmaceutical natural products  
 RL: BIOL (Biological study)  
 (Huajiao, flavonoids from, pos. chronotropic effect of, in heart, structure in relation to)

IT Molecular structure-biological activity relationship  
 (cardiogenic, of flavonoids from Zanthoxylum fruit)

IT Cardiogenics  
 (chronotropics, flavonoids from Zanthoxylum fruit, structure in relation to)

IT Molecular structure-biological activity relationship  
 (heart rate-affecting, of flavonoids from Zanthoxylum fruit)

IT Flavonoids



- RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)  
(hydroxy methoxy, from Zanthoxylum fruit, pos. chronotropic effects of, in heart)
- IT 90-19-7, Rhamnetin **117-39-5**, Quercetin **153-18-4**, Rutin 480-16-0, Morin 491-54-3, Kaempferide **491-70-3**, Luteolin **520-18-3**, Kaempferol 528-48-3, Fisetin 529-40-8, Ombuin **529-44-2**, Myricetin **552-58-9**, Eriodictyol 603-61-2, Tamarixetin 630-60-4, Ouabain 5373-11-5, Luteolin 7-glucoside 17912-87-7, Myricitrin **21637-25-2**, Isoquercitrin 23284-18-6, Peltatoside
- RL: PRP (Properties)  
(chronotropic effects of, in heart)
- IT 7440-70-2, Calcium, biological studies
- RL: BIOL (Biological study)  
(flavonoids from Zanthoxylum fruit effect on uptake of, by heart myocytes, structure and mechanism of cardiotoxic effects in relation to)
- IT 90-24-4, Xanthoxylin 482-36-0, Hyperin **522-12-3**, Quercitrin 645-08-9, Isovanillic acid 4324-53-2, Mikanin 10076-00-3D, hydroxy derivs. 83883-10-7 97465-69-5
- RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)  
(from Zanthoxylum fruit, pos. chronotropic effects of, structure in relation to)
- IT 9000-83-3, ATPase
- RL: BIOL (Biological study)  
(sodium-potassium and calcium, flavonoids from Zanthoxylum fruit effects on, in heart sarcoplasmic reticulum, structure and mechanism of cardiotoxic effects in relation to)

L116 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1992:619828 HCAPLUS

DN 117:219828

TI A study on chemical **composition** of Saururaceae growing in Korea.  
4. On flavonoid constituents of Houttuynia cordata

AU Choe, Koang Hoon; Kwon, Shoon Ja; Jung, Duk Sang

CS Cent. Res. Inst., Yungjin Pharm. Co., Namyang, 445-850, S. Korea

SO Anal. Sci. Technol. (1991), 4(3), 285-8

CODEN: ASCTET

DT Journal

LA Korean

CC **63-4** (Pharmaceuticals)

Section cross-reference(s): 11

AB Four flavonoids, quercitrin, rutin, hyperin and isoquercitrin, were isolated from the aerial parts of H. cordata growing in Korea, and identified by the comparison of their TLC, GC and HPLC chromatogram with those of pure authentic compds.; reynoutrin and afzerin reported were not detected.

ST flavonoid Houttuynia

IT Houttuynia cordata

(flavonoids of)

IT Flavonoids

RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)

(of Houttuynia cordata)

IT **153-18-4**, Rutin 482-36-0, Hyperin **522-12-3**, Quercitrin

**21637-25-2**, Isoquercitrin

RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)

(of Houttuynia cordata)

L116 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1992:148182 HCAPLUS

DN 116:148182

TI Study on the chemical **composition** of flavonoids and terpenes in

*False hit*

- Liquidambar  
 AU Chen, Youdi; Hu, Zhidong; Gu, Yin  
 CS Res. Inst. Chem. Process. Util. For. Prod., Chin. Acad. For., Nanjing,  
 210037, Peop. Rep. China  
 SO Linchan Huaxue Yu Gongye (1991), 11(2), 157-64  
 CODEN: LHYGD7; ISSN: 0253-2417  
 DT Journal  
 LA Chinese  
 CC 11-1 (Plant Biochemistry)  
 Section cross-reference(s): 26, 30, 62  
 AB Flavonoids were identified from the leaves and terpenes from the branch  
 essential oil of Liquidambar species by HPLC, gas chromatog., and mass  
 spectrometry. The pattern of these compds. may assist the the study of  
 the taxonomy and relatedness of the species. Thus, *L. styraciflua* was  
 closely related to *L. formosana*, whereas the relationship between *L.*  
*formosana* and *L. orientalis* was more distant.
- ST Liquidambar flavonoid terpene taxonomy  
 IT Liquidambar  
 Liquidambar acalycina  
 Liquidambar formosana  
 Liquidambar formosana monticola  
 Liquidambar orientalis  
 Liquidambar styraciflua  
 (flavonoids and terpenes of, taxonomy in relation to)
- IT Taxonomy  
 (of Liquidambar species, flavonoids and terpenes in relation to)  
 IT Flavonoids  
 Terpenes and Terpenoids, biological studies  
 RL: BIOL (Biological study)  
 (of Liquidambar species, taxonomy in relation to)  
 IT Essential oils  
 RL: BIOL (Biological study)  
 (Liquidambar formosana terminal branch, terpenes of, taxonomy in  
 relation to)
- IT 76-49-3, Bornyl acetate 80-56-8, .alpha.-Pinene 87-44-5,  
 trans-Caryophyllene 98-55-5, .alpha.-Terpineol 99-83-2,  
 .alpha.-Phellandrene 99-85-4, .gamma.-Terpinene 99-86-5,  
 .alpha.-Terpinene 118-65-0, cis-Caryophyllene 127-91-3, .beta.-Pinene  
 138-86-3, Limonene 153-18-4, Rutin 480-10-4, Astragalin  
 483-76-1, .DELTA.-Cadinene 539-52-6, Perillene 548-04-9 555-10-2,  
 .beta.-Phellandrene 562-74-3 586-63-0 673-84-7 3856-25-5, Copaene  
 6753-98-6, Humulene 13466-78-9, .DELTA.3-Carene 13744-15-5,  
 .beta.-Cubebene 16728-99-7, Naphthalene, 1,2,3,4,4a,7-hexahydro-1,6-  
 dimethyl-4-(1-methylethyl)- 17066-67-0, .beta.-Selinene 20307-84-0,  
 .DELTA.-Elemene 21637-25-2, Isoquercitrin 21902-26-1  
 25246-27-9, Alloaromadendrene 30021-74-0, .gamma.-Muurolene  
 33880-83-0, .beta.-Elemene 56701-52-1 139767-48-9  
 RL: BIOL (Biological study)  
 (of Liquidambar species, taxonomy in relation to)
- L116 ANSWER 23 OF 30 HCAPLUS COPYRIGHT 2000 ACS  
 AN 1991:639442 HCAPLUS  
 DN 115:239442  
 TI Flavonoids and hydroxycinnamic acid derivatives in *Sambucus nigra* L.  
 flowers  
 AU Petitjean-Freytet, C.; Carnat, A.; Lamaison, J. L.  
 CS Lab. Pharmacog. Phytother., Univ. Auvergne, Clermont-Ferrand, F-63000, Fr.  
 SO J. Pharm. Belg. (1991), 46(4), 241-6  
 CODEN: JPBEAJ; ISSN: 0047-2166  
 DT Journal  
 LA French  
 CC 63-4 (Pharmaceuticals)  
 Section cross-reference(s): 11  
 AB The total flavonoid content of *S. nigra* flowers was .apprx.3.5%, and the  
 amt. of hydroxycinnamic acid derivs. was .apprx.5.1%. The major  
 components were rutin (.apprx.2.5%) and chlorogenic acid (.apprx.2.6%).

False hit

False hit

Other constituents were isoquercitrin, isorhamnetin 3-rutinoside, and isorhamnetin 3-glucoside. The flavonoid **compn.** remained const. throughout the flowering season.

ST Sambucus flavonoid hydroxycinnamate deriv; chlorogenic acid Sambucus; rutin Sambucus; cinnamate hydroxy Sambucus

IT Flavonoids

RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)

(of Sambucus nigra flowers)

IT Elder

(S. nigra, flvonoids and hydroxycinnamte derivs. of flowers of)

IT 153-18-4, Rutin 327-97-9 604-80-8 5041-82-7

21637-25-2, Isoquercitrin 25429-38-3D, derivs.

RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)

(of Sambucus nigra flowers)

L116 ANSWER 24 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1991:566373 HCAPLUS

DN 115:166373

TI Hair growth stimulants containing quercetin and/or its glycosides

IN Fujisaki, Yukio; Mizumaki, Katsumi; Watanabe, Megumi

PA Arusofa Sogo Kenkyusho K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-06

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03077809	A2	19910403	JP 1989-214705	19890821 <--
AB	Hair growth stimulants contain quercetin and/or its glycosides. Quercetin 0.1, hinokitiol 0.05, vitamin E acetate 0.05, Me2CHOH 15.00, EtOH 40.00, polyoxyethylene hydrogenated castor oil 0.50, NaOH 0.03, and perfume 0.20 g were <b>mixed</b> with H2O to give 100 mL hair tonic prepn. The prepn. greatly enhanced hair growth in mice and human.				
ST	quercetin glycoside hair growth stimulant				
IT	Alopecia				
	(treatment of, hair prepn. contg. quercetin and/or its glycosides for)				
IT	Hair preparations				
	(growth stimulants, contg. quercetin and/or its glycosides)				
IT	Glycosides				
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (quercetin, hair growth stimulants contg.)				
IT	117-39-5, Quercetin 153-18-4, Rutin 482-36-0, Hyperin 491-50-9, Quercimeritrin 522-12-3, Quercitrin 21637-25-2				
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (hair growth stimulants contg.)				

L116 ANSWER 25 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1990:617758 HCAPLUS

DN 113:217758

TI Procedures for extraction of active components from medicinal plants. II.

Extraction of some phenolic components from hawthorn and linden with water-alcohol and water-glycol **mixtures** containing variable amounts of water

AU Teglia, A.; Melchiorri, M.

CS Ist. Angelica, Bologna, Italy

SO Cosmet. Toiletries, Ed. Ital. (1989), 10(6), 15-37

CODEN: CTEIEZ

DT Journal

LA Italian

CC 62-1 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

*False hit*

*False hit*

- AB Various H<sub>2</sub>O-EtOH and H<sub>2</sub>O-1,2-propylene glycol **mixts.** were used to ext. chlorogenic acid, vitexin 4'-rhamnoside, and hyperoside from hawthorn leaves and flowers and quercitrin and isoquercitrin from linden flowers and tracts. Data are given on the extn. yield with respect to the polarity and hydrophilic/lipophilic balance of the extn. **mixt.** Medium to high amts. of H<sub>2</sub>O were required to obtain the max. solubilizing and permeabilizing properties of the H<sub>2</sub>O-EtOH **mixts.**, whereas low percentages of H<sub>2</sub>O were sufficient with the H<sub>2</sub>O-glycol **mixts**
- ST phenol extn linden hawthorn; propylene glycol extn medicinal plant; ethanol extn medicinal plant
- IT Flavonoids  
Phenols, preparation  
RL: PROC (Process)  
(extn. of, from hawthorn with water-alc. and water-propylene glycol)
- IT Hydrophilicity  
Lipophilicity  
(phenols extn. from plants in relation to)
- IT Linden  
(T. cordata, phenols extn. from, with water-alc. and water-propylene glycol)
- IT Hawthorn  
(C. oxyacantha, phenols extn. from, with water-alc. and water-propylene glycol)
- IT 327-97-9, Chlorogenic acid 482-36-0, Hyperoside 522-12-3, Quercitrin 21637-25-2, Isoquercitrin 32426-34-9, Vitexin 4'-rhamnoside  
RL: PROC (Process)  
(extn. of, from hawthorn with water-alc. and water-propylene glycol)
- IT 7732-18-5  
RL: BIOL (Biological study)  
(hydrophilicity, phenols extn. from plants in relation to)
- IT 57-55-6, 1,2-Propanediol, uses and miscellaneous 64-17-5, Ethanol, uses and miscellaneous  
RL: USES (Uses)  
(phenols extn. from hawthorn and linden with)

L116 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1988:615829 HCAPLUS

DN 109:215829

TI Polyphenolic constituents of flowers of Tilia tomentosa Moench

AU Tzakou, O.; Skaltsa, H.; Philianos, S.

CS Lab. Pharm., Univ. Athenes, Athens, GR - 106 80, Greece

SO Plant. Med. Phytother. (1987), 21(4), 305-10

CODEN: PLMPA9; ISSN: 0032-0994

DT Journal

LA French

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 11

AB Quercetin, kaempferol, hyperoside, isoquercitrin, astragalín, caffeic acid, chlorogenic acid and aesculin were isolated and identified in a decoction of the flowers and leaves of T. tomentosa.

ST Tilia decoction polyphenol **compn**

IT Flavonoids

RL: BIOL (Biological study)

(of Tilia tomentosa decoction)

IT Phenols, biological studies

RL: BIOL (Biological study)

(polyhydric, of Tilia tomentosa decoction)

IT Linden

(T. tomentosa, polyphenols in decoction of)

IT 117-39-5, Quercetin 327-97-9, Chlorogenic acid 331-39-5,

Caffeic acid 480-10-4, Astragalín 482-36-0, Hyperoside

520-18-3, Kaempferol 531-75-9, Aesculin 21637-25-2,

Isoquercitrin

RL: BIOL (Biological study)

*False hit*

(of Tilia tomentosa decoction)

L116 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1988:156489 HCAPLUS

DN 108:156489

TI Metal halide modification of plant extracts from zygophyllaceae

IN Jordan, Russell T.

PA Chemex Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K033-24

ICS A61K033-34; A61K033-32; A61K033-30; A61K035-78; A61K031-35;

A61K031-075; A61K031-05; A61K031-045

CC 63-6 (Pharmaceuticals)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8706833	A1	19871119	WO 1986-US2543	19861119 <--
	W: AU, BB, DK, JP, KP, KR, NO, SU				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	US 4774229	A	19880927	US 1986-860654	19860507 <--
	AU 8767298	A1	19871201	AU 1987-67298	19861119 <--
	ES 2006474	A6	19890501	ES 1987-1366	19870507 <--
	CA 1303497	A1	19920616	CA 1987-536636	19870507 <--
PRAI	US 1986-860654		19860507 <--		
	US 1979-49886		19790619 <--		
	US 1982-365784		19820405 <--		
	WO 1986-US2543		19861119 <--		

AB A **mixt.** of an ext. from a plant belonging to the zygophyllaceae family contains phenolic **compns.** and a nonalkali metal salt. It is useful as a pharmaceutical ~~agent~~, e.g. in the treatment of cancer, nonmalignant tumors, osteomyelitis, psoriasis, and warts. Larrea divaricata Was 1st ground to a fine powder of .apprx.1-150 .mu. particle size, and then subjected to extn. with toluene and Et2O. An ointment was made from a dried paste from powd. Larrea divaricata, powd. rose hips, and aq. ZnCl2. Applications to treatment of osteomyelitis and perianal adenomas were successful.

ST Zygophyllaceae plant ext metal salt; zinc chloride Zygophyllaceae plant ext; cancer treatment Zygophyllaceae metal salt; tumor treatment Zygophyllaceae metal salt; antimicrobial Zygophyllaceae metal salt; skin disorder treatment Zygophyllaceae metal salt

IT Bactericides, Disinfectants, and Antiseptics

Neoplasm inhibitors

(Zygophyllaceae plant ext.-metal salt **mixts.** as)

IT Creosote bush

Guaiacum (plant)

Kallstroemia

Larrea

Larrea divaricata

Pagonia

Porlieria

Tribulus

Zygophyllaceae

(ext., **mixts.** with metal salts, in treatment of cancer, tumors, osteomyelitis, and skin disorders)

IT Creosote bush

(ext., **mixts.** with zinc chloride, pharmaceutical soln.

contg., for treatment of cancer, nonmalignant tumors, osteomyelitis, and skin disorders)

IT Larrea divaricata

(ext., **mixts.** with zinc chloride, pharmaceuticals contg., for treatment of cancer, nonmalignant tumors, osteomyelitis, and skin disorders)

IT Osteomyelitis

Psoriasis

Wart

(treatment of, Zygophyllaceae plant ext.-metal salt **mixts.** in)

IT Manganese halides

RL: BIOL (Biological study)

(**mixts.**, with Zygophyllaceae plant exts., in treatment of cancer, nonmalignant tumors, osteomyelitis, and skin disorders)

IT 113518-65-3 113518-66-4

RL: BIOL (Biological study)

(in treatment of cancer, tumors, osteomyelitis and skin disorders)

IT 90-05-1D, Guaiacol, **mixts.** with metal salts 90-18-6D,

Quercetagenin, **mixts.** with metal salts **117-39-5D**,

Quercetin, **mixts.** with metal salts **153-18-4D**, Rutin,

**mixts.** with metal salts 437-64-9D, Apigenin 7-methyl ether,

**mixts.** with metal salts **480-19-3D**, Quercetin 3'-methyl

ether, **mixts.** with metal salts 491-71-4D, Luteolin 3'-methyl

ether, **mixts.** with metal salts 500-38-9D, **mixts.**

with metal salts 500-40-3D, **mixts.** with metal salts

**520-18-3D**, Kaempferol, **mixts.** with metal salts

**520-36-5D**, Apigenin, **mixts.** with metal salts

552-54-5D, Quercetin 7,3'-dimethyl ether, **mixts.** with metal

salts 569-92-6D, Kaempferol 7-methyl ether, **mixts.** with metal

salts 1245-15-4D, Quercetin 3,7,3',4'-tetramethyl ether, **mixts.**

. with metal salts 1344-67-8D, Copper chloride (unspecified),

**mixts.** with plant exts. 1592-70-7D, Kaempferol 3-methyl ether,

**mixts.** with metal salts 2068-02-2D, Quercetin 3,7-dimethyl

ether, **mixts.** with metal salts 3301-49-3D, Kaempferol

3,7-dimethyl ether, **mixts.** with metal salts 4382-17-6D,

Quercetin 3,3'-dimethyl ether, **mixts.** with metal salts

6068-80-0D, **mixts.** with metal salts 7646-85-7D, Zinc chloride,

**mixts.** with plant exts. 8023-41-4D, Guaiacolic acid,

**mixts.** with metal salts 10025-91-9D, **mixts.** with plant

exts. 10108-64-2D, **mixts.** with plant exts. 20869-95-8D,

Kaempferol 3,4'-dimethyl ether, **mixts.** with metal salts

**21637-25-2D**, Isoquercitrin, **mixts.** with metal salts

23666-13-9D, Vicenin, **mixts.** with metal salts 25739-41-7D,

Luteolin 7,3'-dimethyl ether, **mixts.** with metal salts

27554-19-4D, Kaempferol 3-O-rhamnosylglucoside, **mixts.** with

metal salts 33708-72-4D, Quercetin 3,7,3'-trimethyl ether, **mixts.**

. with metal salts 36469-60-0D, Dihydroguaiaretic acid, **mixts.**

with metal salts 50376-42-6D, Norisoguaiacin, **mixts.** with

metal salts 50938-07-3D, **mixts.** with metal salts

54473-24-4D, **mixts.** with metal salts 56305-02-3D,

**mixts.** with metal salts 56305-03-4D, Herbacetin 3,7-dimethyl

ether, **mixts.** with metal salts 57765-84-1D, Gossypetin

3,7-dimethyl ether, **mixts.** with metal salts 63975-58-6D,

**mixts.** with metal salts 113665-37-5D, **mixts.** with

metal salts 113665-38-6D, **mixts.** with metal salts

113665-39-7D, **mixts.** with metal salts 113665-40-0D,

**mixts.** with metal salts 113818-07-8D, **mixts.** with

metal salts 113818-08-9D, **mixts.** with metal salts

113818-09-0D, **mixts.** with metal salts 113818-10-3D,

**mixts.** with metal salts

RL: BIOL (Biological study)

(in treatment of cancer, tumors, osteomyelitis, and skin disorders)

L116 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1986:165331 HCAPLUS

DN 104:165331

TI A phytochemical study of the fruits of certain Cassia species cultivated in Egypt

AU El-Sayyad, Samia M.; Sayed, Hanaa M.

CS Fac. Pharm., Assiut Univ., Assiut, Egypt

SO Bull. Pharm. Sci., Assiut Univ. (1985), 8(1), 12-27

CODEN: BPAUEC

DT Journal  
 LA English  
 CC 11-1 (Plant Biochemistry)  
 Section cross-reference(s): 63  
 AB The pericarps of *C. javanica*, *C. siamea*, *C. fistula*, and *C. didymobotrya* contained flavonoids, anthraquinones, chromones, sterols, and (or) triterpenes together with hydrocarbons and alcs. The semi-drying seed oils contained too much free fatty acids, waxes and hydrocarbons to be used for food. The fatty acids were identified by gas chromatog.

ST Cassia fruit **compn**  
 IT Senna  
 (fruit **compn.** of species of)  
 IT Alcohols, biological studies  
 Alkaloids, biological studies  
 Fatty acids, biological studies  
 Flavonoids  
 Leucoanthocyanins  
 Triterpenes and Triterpenoids  
 RL: BOC (Biological occurrence); BIOL (Biological study); OCCU  
 (Occurrence)  
 (of Cassia fruits)  
 IT Oils  
 RL: BOC (Biological occurrence); BIOL (Biological study); OCCU  
 (Occurrence)  
 (of Cassia seed)  
 IT Steroids, biological studies  
 RL: BOC (Biological occurrence); BIOL (Biological study); OCCU  
 (Occurrence)  
 (hydroxy, of Cassia fruits)  
 IT Senna  
 (C. didymobotrya, constituents of fruit of)  
 IT Senna  
 (C. fistula, constituents of fruit of)  
 IT Senna  
 (C. javanica, constituents of fruit of)  
 IT Senna  
 (C. siamea, constituents of fruit of)  
 IT 83-46-5 84-65-1D, derivs. 117-39-5 478-43-3 478-43-3D,  
 glycosides 481-72-1 481-74-3 491-38-3D, derivs. 506-46-7  
 518-82-1 520-18-3 520-36-5 521-61-9 559-70-6  
 593-49-7 630-04-6 638-95-9 1592-70-7 21637-25-2  
 28955-30-8 32310-28-4 92446-27-0 101706-76-7  
 RL: BOC (Biological occurrence); BIOL (Biological study); OCCU  
 (Occurrence)  
 (of Cassia fruits)

*False link*

L116 ANSWER 29 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1980:625568 HCAPLUS

DN 93:225568

TI Chemical substances from inflorescences of *Arnica montana* L. and *Calendula officinalis* L. soluble in isopropyl myristate and propylene glycol

AU Gora, J.; Kalemba, D.; Kurowska, A.; Swiatek, L.

CS Inst. Gen. Food Chem., Tech. Univ., Lodz, Pol.

SO Herba Hung. (1980), 19(1), 165-71

CODEN: HEHUAW; ISSN: 0018-0580

DT Journal

LA English

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 62

AB Prepn. and chem. **compn.** of isopropyl myristate [110-27-0] and propylene glycol [57-55-6] exts. from inflorescences of *A. montana* and *C. officinalis* were studied. The exts. were obtained by continuous extn. of inflorescence with solvents. Iso-Pr myristate exts. contain phenolic acids, sterols, and carotenoids. Propylene glycol exts. contain sugars, carotenoids, and flavonoids. Some of chem. components of essential oils were found in both exts. of those plants. Exts. have antimicrobial

*False link*

activity and can be use in cosmetics.

ST Arnica ext **compn**; Calendula ext **compn**; isopropyl  
myristate ext Arnica Calendula; propylene glycol ext Arnica Calendula

IT Phenols, biological studies  
RL: BIOL (Biological study)  
(acids, of iso-Pr myristate exts. of Arnica montana and Calendula  
officinalis)

IT Cosmetics  
(antimicrobial exts. of Arnica montana and Calendula officinalis for)

IT Arnica montana  
Calendula officinalis  
(iso-Pr myristate and propylene glycol exts. of)

IT Bactericides, Disinfectants and Antiseptics  
(iso-Pr myristate and propylene glycol exts. of Arnica montana and  
Calendula officinalis)

IT Carotenes and Carotenoids, biological studies  
RL: BIOL (Biological study)  
(of iso-Pr myristate and propylene glycol exts. of Arnica montana and  
Calendula officinalis)

IT Flavonoids  
Sugars, biological studies  
RL: BIOL (Biological study)  
(of propylene glycol exts. of Arnica montana and Calendula officinalis)

IT Steroids, biological studies  
RL: BIOL (Biological study)  
(hydroxy, of iso-Pr myristate exts. of Arnica montana and Calendula  
officinalis)

IT Carboxylic acids, biological studies  
RL: BIOL (Biological study)  
(phenolic, of iso-Pr myristate exts. of Arnica montana and Calendula  
officinalis)

IT 57-55-6, biological studies 110-27-0  
RL: BIOL (Biological study)  
(exts. of Arnica montana and Calendula officinalis in)

IT 99-96-7, biological studies 121-34-6  
RL: BIOL (Biological study)  
(of Arnica montana and Calendula officinalis iso-Pr myristate exts.)

IT **117-39-5 21637-25-2**  
RL: BIOL (Biological study)  
(of Arnica montana and Calendula officinalis propylene glycol exts.)

IT 99-50-3 1135-24-6  
RL: BIOL (Biological study)  
(of Arnica montana iso-Pr myristate exts.)

IT 480-10-4 **520-18-3**  
RL: BIOL (Biological study)  
(of Arnica montana propylene glycol ext.)

IT 69-72-7, biological studies 331-39-5 530-57-4 7400-08-0  
RL: BIOL (Biological study)  
(of Calendula officinalis iso-Pr myristate exts.)

L116 ANSWER 30 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1977:114978 HCAPLUS

DN 86:114978

TI Inhibition of lens aldose reductase by flavonoids-their possible role in  
the prevention of diabetic cataracts

AU Varma, Shambhu D.; Kinoshita, Jin H

CS Natl. Eye Inst., Natl. Inst. Health, Bethesda, Md., USA

SO Biochem. Pharmacol. (1976), 25(22), 2505-13

CODEN: BCPCA6

DT Journal

LA English

CC 1-3 (Pharmacodynamics)

Section cross-reference(s): 7

AB Of 41 flavone derivs. which inhibited aldose reductase [9028-31-3] of rat  
eye lenses, quercitrin [522-12-3] and quercitrinyl 2"-acetate  
[61891-39-2] were the most potent and inhibited activity by 50% at 10-7

False hit



and 4 .times. 10-8M resp. Structural alterations in the basic flavonoid moiety indicated more potent analogs may be synthesized which may ultimately be useful in diabetic patients.

ST aldose reductase eye flavonoid

IT Flavonoids

RL: BIOL (Biological study)

(aldose reductase of eye inhibition by)

IT Eye, **composition**

(aldose reductase of, flavonoids inhibition of)

IT Molecular structure-biological activity relationship

(aldose reductase-inhibiting, of flavonoids)

IT 117-39-5 153-18-4 154-23-4 301-19-9

305-01-1 327-97-9 480-16-0 480-17-1 **480-40-0**

**480-44-4** 482-36-0 490-46-0 491-54-3 **491-70-3**

**520-18-3** 520-26-3 **520-33-2** **520-36-5**

**522-12-3** 528-48-3 528-53-0 **529-44-2** 531-75-9

**552-58-9** 652-78-8 5117-01-1 6980-20-7 7085-55-4

10236-47-2 15485-76-4 17334-58-6 17912-87-7 **21637-25-2**

23869-24-1 26544-34-3 28608-75-5 30902-90-0 50376-44-8

51031-80-2 61891-38-1 61891-39-2

RL: BIOL (Biological study)

(aldose reductase of eye inhibition by)

IT 9028-31-3

RL: PROC (Process)

(of eye lens, flavonoids inhibition of)

=> fil napral

FILE 'NAPRALERT' ENTERED AT 10:53:42 ON 03 JUL 2000

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University of Illinois at Chicago.

.....

Some records in this file are extremely long when displayed in the ALL format. The CHC (Character Count) field can be used to estimate record length. Type HELP CONTENT at the next arrow prompt (=>) for data content and search strategy information.

.....

FILE COVERS 1650 TO 16 JUN 2000 (20000616/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d ihs l117-

'IHS' IS NOT A VALID FORMAT FOR FILE 'NAPRALERT'

'L117-' IS NOT A VALID FORMAT FOR FILE 'NAPRALERT'

The following are valid formats:

ALL ----- All data for the record

BIB ----- AN, plus Bibliographic Data

CBIB ----- AN, plus Bibliographic Data (compressed)

IALL ----- ALL, indented with text labels for the Bibliographic Data

IBIB ----- BIB, indented with text labels

ORG ----- Information on all organisms cited

QRD ----- Variable -- fields displayed are related to the search

SAM ----- Title (Answers are numbered, no AN)

SCAN ----- Title (Random display without answer numbers, no AN)

HIT ----- Fields containing hit terms (this could be VERY large)

KWIC ----- Hit term plus 20 words on either side

OCC ----- Number of occurrences of hit term and field in which it occurs

CHC ----- Approximate character count for the record

To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter "HELP DFIELDS" at an arrow prompt (=>). Examples of formats include: "TI"; "TI,AU"; "BIB,OCC"; "BIB,HIT"; "TI,SO". You may specify the format fields in any order and the information will be displayed in the same order as the format specification.

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ENTER DISPLAY FORMAT (QRD):end

=> d his 1117-

(FILE 'HCAPLUS' ENTERED AT 10:49:06 ON 03 JUL 2000)

FILE 'NAPRALERT' ENTERED AT 10:51:51 ON 03 JUL 2000

L117 518 S L110  
L118 573 S L28  
L119 3 S L117 (L) (VIRAL? OR VIRUS? OR VIRUC? OR HERPE? OR ANTIVIR? OR  
L120 2 S L118 (L) (VIRAL? OR VIRUS? OR VIRUC? OR HERPE? OR ANTIVIR? OR  
L121 5 S L119,L120

FILE 'NAPRALERT' ENTERED AT 10:53:42 ON 03 JUL 2000

=> d 1121 tot qrd

L121 ANSWER 1 OF 5 NAPRALERT COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.  
AN 97:3883 NAPRALERT  
DN K29118  
TI CONSTITUENTS OF CONVULVULUS LANATUS VAHL. WITH ANTIVIRAL AND  
CYTOTOXICACTIVITY  
AU EL-FIKY F K; ABDEL-KADER M S; ABOUL-ELA M A  
CS PHARMACOG DEPT, FAC PHARM, ALEXANDRIA UNIV, ALEXANDRIA EGYPT  
SO ALEXANDRIA J PHARM SCI (1996) 10 (1) p. 25-28.  
DT (Research paper)  
LA ENGLISH  
CHC 2684  
ORGN Class: DICOT Family: CONVOLVULACEAE Genus: CONVOLVULUS Species: LANATUS  
Organism part: DRIED ENTIRE PLANT  
TYPE OF STUDY (STY): IN VITRO. Classification (CC): **ANTIVIRAL**  
**ACTIVITY**  
Dosage Information: CELL CULTURE; ED50: 20.0 MCG per ML  
Pathological system: VESICULAR STOMATITIS **VIRUS**  
Qualitative results: WEAK ACTIVITY  
COMPOUND. Chemical name (CN): CAFFEIC ACID  
CAS Registry Number (RN): 331-39-5  
Class identifier (CI): PHENYLPROPANOID  
TYPE OF STUDY (STY): ISOLATION.  
COMPOUND. Chemical name (CN): QUERCITRIN,ISO  
CAS Registry Number (RN): **21637-25-2**  
Class identifier (CI): FLAVONOID  
Yield: 00.001228  
TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY  
Dosage Information: CELL CULTURE; IC50: 20.0 MCG per ML  
Pathological system: CELLS-NIH-3T3  
Qualitative results: WEAK ACTIVITY  
COMPOUND. Chemical name (CN): QUERCITRIN,ISO  
CAS Registry Number (RN): **21637-25-2**  
Class identifier (CI): FLAVONOID  
TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY  
Dosage Information: CELL CULTURE; IC50: 20.0 MCG per ML  
Qualitative results: WEAK ACTIVITY  
Comment(s): VS.CELL LINE KA31T.  
COMPOUND. Chemical name (CN): QUERCITRIN,ISO  
CAS Registry Number (RN): **21637-25-2**

103

W  
order

Class identifier (CI): FLAVONOID  
TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY  
Dosage Information: CELL CULTURE; IC50: 35.0 MCG per ML  
Qualitative results: WEAK ACTIVITY  
Comment(s): VS. PROLIFERATING VERO CELLS.  
COMPOUND. Chemical name (CN): QUERCITRIN, ISO  
CAS Registry Number (RN): 21637-25-2  
Class identifier (CI): FLAVONOID  
TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY  
Dosage Information: CELL CULTURE; IC50: 200.0 MCG per ML  
Qualitative results: INACTIVE  
Comment(s): VS. NON-PROLIFERATING VERO CELLS.  
COMPOUND. Chemical name (CN): QUERCITRIN, ISO  
CAS Registry Number (RN): 21637-25-2  
Class identifier (CI): FLAVONOID  
TYPE OF STUDY (STY): IN VITRO. Classification (CC): **ANTIVIRAL**  
**ACTIVITY**  
Dosage Information: CELL CULTURE; ED50: 200.0 MCG per ML  
Pathological system: PARAINFLUENZA **VIRUS 3**  
Qualitative results: INACTIVE  
COMPOUND. Chemical name (CN): QUERCITRIN, ISO  
CAS Registry Number (RN): 21637-25-2  
Class identifier (CI): FLAVONOID

L121 ANSWER 2 OF 5 NAPRALERT COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.  
AN 94:4992 NAPRALERT  
DN K16396  
TI INHIBITION OF HIV INFECTION BY FLAVANOIDS  
AU MAHMOOD N; PIZZA C; AQUINO R; DE TOMMASI N; PIACENTE S; COLMAN S; BURKE A;  
HAY A J  
CS MRC COLL CENT, LONDON ENGLAND  
SO ANTIVIRAL RES (1993) 22 (2/3) p. 189-199.  
DT (Research paper)  
LA ENGLISH  
CHC 17724

ORGN Class: DICOT Family: LABIATAE Genus: MINTHOSTACHYS Species: SETOSA  
Organism part: DRIED LEAF

TYPE OF STUDY (STY): IN VITRO. Classification (CC): **ANTIVIRAL**

**ACTIVITY**

Dosage Information: CELL CULTURE; ED50: >100 MCG per ML  
Pathological system: **VIRUS-HIV-1**  
Qualitative results: INACTIVE  
Comment(s): C8166 CELLS WERE INFECTED.

COMPOUND. Chemical name (CN): QUERCITRIN, OS

Class identifier (CI): FLAVONOID

TYPE OF STUDY (STY): ISOLATION.

COMPOUND. Chemical name (CN): HYPEROSIDE

CAS Registry Number (RN): **482-36-0**

Class identifier (CI): FLAVONOID

TYPE OF STUDY (STY): IN VITRO. Classification (CC): **ANTIVIRAL**

**ACTIVITY**

Dosage Information: CELL CULTURE; ED50: >100 MCG per ML  
Pathological system: **VIRUS-HIV-1**  
Qualitative results: INACTIVE  
Comment(s): C8166 CELLS WERE INFECTED.

COMPOUND. Chemical name (CN): HYPEROSIDE

CAS Registry Number (RN): **482-36-0**

Class identifier (CI): FLAVONOID

TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY

Dosage Information: CELL CULTURE; IC50: >100 MCG per ML

Pathological system: CELLS-C8166

Qualitative results: INACTIVE

COMPOUND. Chemical name (CN): HYPEROSIDE

CAS Registry Number (RN): **482-36-0**

Class identifier (CI): FLAVONOID

TYPE OF STUDY (STY): IN VITRO. Classification (CC): **ANTIVIRAL**

**ACTIVITY**

Dosage Information: CELL CULTURE; ED50: &gt;100 MCG per ML

Pathological system: **VIRUS-HIV-1**

Qualitative results: INACTIVE

Comment(s): C8166 CELLS WERE INFECTED.

COMPOUND. Chemical name (CN): RHAMNETIN,ISO

CAS Registry Number (RN): 480-19-3

Class identifier (CI): FLAVONOID

TYPE OF STUDY (STY): IN VITRO. Classification (CC): **ANTIVIRAL****ACTIVITY**

Dosage Information: CELL CULTURE; ED50: 40.0 MCG per ML

Pathological system: **VIRUS-HIV-1**

Qualitative results: INACTIVE

Comment(s): C8166 CELLS WERE INFECTED.

COMPOUND. Chemical name (CN): FLAVONONE,5-7-DIHYDROXY-4'-METHOXY:

7-O-RUTINOSIDE

Class identifier (CI): FLAVONOID

L121 ANSWER 3 OF 5 NAPRALERT COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.

AN 93:4544 NAPRALERT

DN K12425

TI QUERCETIN AND ITS GLUCOSIDE FOR TREATMENT OF HEPATITIS B

AU MATSUMOTO M; OKUNO T; WATANABE A; KIDO Y; YOSHIDA O

CS FUJIREBIO INC, JAPAN

SO PATENT-JAPAN KOKAI TOKKYO KOHO-04 234,320 (1992) p. 3PP-..

DT Journal

LA JAPANESE

OS CA 117:226302

CHC 960

ORGN Class: DICOT

TYPE OF STUDY (STY): IN VITRO. Classification (CC): DNA POLYMERASE

INHIBITION

Dosage Information: CONC USED: 0.1 MG per ML

Pathological system: HEPATITIS B **VIRUS**

Qualitative results: ACTIVE

Comment(s): DATA INCOMPLETE - DERIVED FROM AN ABSTRACT. BIOLOGICAL

ACTIVITY REPORTED HAS BEEN PATENTED.

COMPOUND. Chemical name (CN): QUERCITRIN,ISO

CAS Registry Number (RN): **21637-25-2**

Class identifier (CI): FLAVONOID

L121 ANSWER 4 OF 5 NAPRALERT COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.

AN 92:98718 NAPRALERT

DN K08042

TI ISOLATION AND CHARACTERIZATION OF AN ANTIVIRAL FLAVONOID FROM WALDSTEINIA

FRAGARIOIDES

AU ABOU-KARAM M; SHIER W T

CS DEPT MED CHEM, COLL PHARM, UNIV MINNESOTA, MINNEAPOLIS MN 55455 USA

SO J NAT PROD (1992) 55 (10) p. 1525-1527.

DT (Research paper)

LA ENGLISH

CHC 1080

ORGN Class: DICOT Family: ROSACEAE Genus: WALDSTEINIA Species: FRAGARIOIDES

Organism part: DRIED ENTIRE PLANT

Geographic area (GT): USA-MN; AMN

TYPE OF STUDY (STY): IN VITRO. Classification (CC): **ANTIVIRAL****ACTIVITY**

Extract type: ETOH(95%)EXT

Dosage Information: CELL CULTURE; IC50: 15.7 MCG per ML

Pathological system: **VIRUS-HIV-1**

Qualitative results: ACTIVE

TYPE OF STUDY (STY): ISOLATION.

COMPOUND. Chemical name (CN): QUERCITRIN,ISO

CAS Registry Number (RN): **21637-25-2**

Class identifier (CI): FLAVONOID

Yield: 00.00036%

XXX

TYPE OF STUDY (STY): IN VITRO. Classification (CC): **ANTIVIRAL**

**ACTIVITY**

Dosage Information: CELL CULTURE; CONC USED: 40.0 MCG per ML

Pathological system: **HERPES SIMPLEX 1 VIRUS**

Qualitative results: ACTIVE

COMPOUND. Chemical name (CN): QUERCITRIN, ISO

CAS Registry Number (RN): **21637-25-2**

Class identifier (CI): FLAVONOID

TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY

Dosage Information: CELL CULTURE; IC50: 250.0 MCG per ML

Pathological system: CELLS-VERO

Qualitative results: WEAK ACTIVITY

COMPOUND. Chemical name (CN): QUERCITRIN, ISO

CAS Registry Number (RN): **21637-25-2**

Class identifier (CI): FLAVONOID

L121 ANSWER 5 OF 5 NAPRALERT COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.

AN 92:89453 NAPRALERT

DN T12008

TI ANTIVIRAL ACTIVITY OF NATURAL OCCURRING FLAVONOIDS IN VITRO

AU TSUCHIYA Y; SHIMIZU M; HIYAMA Y; ITOH K; HASHIMOTO Y; NAKAYAMA M; HORIE T; MORITA N

CS KYOTO RES INST, KAKEN PHARMACEUT CO LTD, KYOTO 607 JAPAN

SO CHEM PHARM BULL (1985) 33 (9) p. 3881-3886.

DT (Research paper)

LA ENGLISH

CHC 9420

ORGN Class: DICOT

TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY

Dosage Information: CELL CULTURE; ED50: >40.0 MCG per ML

Pathological system: CELLS-CHO(CHINESE HAMSTER OVARY)

Qualitative results: INACTIVE

COMPOUND. Chemical name (CN): HYPEROSIDE

CAS Registry Number (RN): **482-36-0**

Class identifier (CI): FLAVONOID

TYPE OF STUDY (STY): IN VITRO. Classification (CC): **ANTIVIRAL**

**ACTIVITY**

Dosage Information: CELL CULTURE; MINIMUM TOXIC DOSE: >40.0 MCG per ML

Pathological system: RHINOVIRUS

Qualitative results: INACTIVE

COMPOUND. Chemical name (CN): HYPEROSIDE

CAS Registry Number (RN): **482-36-0**

Class identifier (CI): FLAVONOID

COMPOUND. Chemical name (CN): SWERTISIN

CAS Registry Number (RN): 6991-10-2

Class identifier (CI): FLAVONOID

COMPOUND. Chemical name (CN): TECTOCHRY SIN

CAS Registry Number (RN): 520-28-5

Class identifier (CI): FLAVONOID

COMPOUND. Chemical name (CN): VITEXIN

CAS Registry Number (RN): 3681-93-4

Class identifier (CI): FLAVONOID

COMPOUND. Chemical name (CN): WOGONIN

CAS Registry Number (RN): 632-85-9

Class identifier (CI): FLAVONOID

COMPOUND. Chemical name (CN): PECTOLINARIGENIN

CAS Registry Number (RN): 520-12-7

Class identifier (CI): FLAVONOID

COMPOUND. Chemical name (CN): RHOIFOLIN

CAS Registry Number (RN): 17306-46-6

Class identifier (CI): FLAVONOID

COMPOUND. Chemical name (CN): SCUTELLAREIN

CAS Registry Number (RN): 529-53-3

Class identifier (CI): FLAVONOID

COMPOUND. Chemical name (CN): SORBARIN

CAS Registry Number (RN): 24512-68-3  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): LUTEOLIN  
CAS Registry Number (RN): 491-70-3  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): FLAVONE,3'-4'-5-6-7-PENTAHYDROXY  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): ORIENTIN  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): PECTOLINARIN  
CAS Registry Number (RN): 28978-02-1  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): COSMOSIIN  
CAS Registry Number (RN): 578-74-5  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): DIOSMETIN  
CAS Registry Number (RN): 520-34-3  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): EMBININ  
CAS Registry Number (RN): 52589-13-6  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): LINARIN  
CAS Registry Number (RN): 480-36-4  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): BAICALIN  
CAS Registry Number (RN): 21967-41-9  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): FLAVONE,5-6-7-TRIMETHOXY  
CAS Registry Number (RN): 973-67-1  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): CIRSIMARITIN  
CAS Registry Number (RN): 6601-62-3  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): CIRSIMARIN  
CAS Registry Number (RN): 13020-19-4  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): ACACETIN  
CAS Registry Number (RN): 480-44-4  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): APIGENIN  
CAS Registry Number (RN): 520-36-5  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): APIIN  
CAS Registry Number (RN): 26544-34-3  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): BAICALEIN  
CAS Registry Number (RN): 491-67-8  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): NARINGIN  
CAS Registry Number (RN): 10236-47-2  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): NARINGENIN  
CAS Registry Number (RN): 480-41-1  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): ROVININ  
CAS Registry Number (RN): 99566-93-5  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): AMENTOFLAVONE  
CAS Registry Number (RN): 1617-53-4  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): GENISTEIN  
CAS Registry Number (RN): 446-72-0  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): RIDIN  
Class identifier (CI): FLAVONOID  
COMPOUND. Chemical name (CN): SOPHORICOSIDE

CAS Registry Number (RN): 152-95-4  
 Class identifier (CI): FLAVONOID  
 COMPOUND. Chemical name (CN): HESPERIDIN  
 CAS Registry Number (RN): 520-26-3  
 Class identifier (CI): FLAVONOID  
 COMPOUND. Chemical name (CN): QUERCITRIN  
 CAS Registry Number (RN): 522-12-3  
 Class identifier (CI): FLAVONOID  
 COMPOUND. Chemical name (CN): QUERCETAGETIN  
 CAS Registry Number (RN): 90-18-6  
 Class identifier (CI): FLAVONOID  
 COMPOUND. Chemical name (CN): RUTIN  
 CAS Registry Number (RN): 153-18-4  
 Class identifier (CI): FLAVONOID  
 COMPOUND. Chemical name (CN): FLAVONE, 4'-HYDROXY-3-3'-5-6-7-  
 PENTAMETHOXY  
 Class identifier (CI): FLAVONOID  
 COMPOUND. Chemical name (CN): MORIN  
 CAS Registry Number (RN): 480-16-0  
 Class identifier (CI): FLAVONOID  
 COMPOUND. Chemical name (CN): MYRICETIN  
 CAS Registry Number (RN): 529-44-2  
 Class identifier (CI): FLAVONOID  
 COMPOUND. Chemical name (CN): MYRICITRIN  
 CAS Registry Number (RN): 17912-87-7  
 Class identifier (CI): FLAVONOID  
 COMPOUND. Chemical name (CN): QUERCETIN  
 CAS Registry Number (RN): 117-39-5  
 Class identifier (CI): FLAVONOID

=> fil medline

FILE 'MEDLINE' ENTERED AT 10:56:53 ON 03 JUL 2000

FILE LAST UPDATED: 29 JUN 2000 (20000629/UP). FILE COVERS 1960 TO DATE.

MEDLINE has been reloaded to reflect the annual MeSH changes made by the National Library of Medicine for 2000. Enter HELP RLOAD for details.

OLDMEDLINE, data from 1960 through 1965 from the Cumulated Index Medicus (CIM), has been added to MEDLINE. See HELP CONTENT for details.

Left, right, and simultaneous left and right truncation are available in the Basic Index. See HELP SFIELDS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

=> d his l122-

(FILE 'NAPRALERT' ENTERED AT 10:51:51 ON 03 JUL 2000)

FILE 'NAPRALERT' ENTERED AT 10:53:42 ON 03 JUL 2000

FILE 'MEDLINE' ENTERED AT 10:54:30 ON 03 JUL 2000

L122 19 S L110  
 L123 50 S ISOQUERCITRIN  
 L124 19 S L28  
 L125 80 S ISOQUERCITRIN OR HYPEROSIDE  
 L126 1 S L122-L125 AND ?HERPE?  
 L127 2 S L122-L125 AND (ANTIVIRAL AGENTS+NT OR VIRUS DISEASES+NT OR VI  
 L128 2 S L126,L127  
 L129 1 S L128 NOT CLOVER

FILE 'MEDLINE' ENTERED AT 10:56:53 ON 03 JUL 2000

=> d all

L129 ANSWER 1 OF 1 MEDLINE  
AN 93085369 MEDLINE  
DN 93085369  
TI Isolation and characterization of an antiviral flavonoid from *Waldsteinia fragarioides*.  
AU Abou-Karam M; Shier W T  
CS Department of Medicinal Chemistry, College of Pharmacy, University of Minnesota, Minneapolis 55455.  
SO JOURNAL OF NATURAL PRODUCTS, (1992 Oct) 55 (10) 1525-7.  
Journal code: JA4. ISSN: 0163-3864.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199303  
AB The antiviral agent in a fraction from *Waldsteinia fragarioides* (Rosaceae) was purified using bioassay-guided fractionation of activity against **herpes simplex type 1 virus**. Structural elucidation by instrumental methods identified the active component to be the known flavonoid glycoside, **isoquercitrin** (3,3',4',5,7-pentahydroxyflavone-3 beta-O-glucoside), which had not previously been shown to possess antiviral activity.  
CT Check Tags: Support, Non-U.S. Gov't  
\*Antiviral Agents: IP, isolation & purification  
Antiviral Agents: PD, pharmacology  
\*Bioflavonoids: IP, isolation & purification  
Bioflavonoids: PD, pharmacology  
HIV-1: DE, drug effects  
Nuclear Magnetic Resonance  
Plant Extracts: CH, chemistry  
\*Plant Extracts: IP, isolation & purification  
Plant Extracts: PD, pharmacology  
\*Plants, Medicinal: CH, chemistry  
Plaque Assay  
Simplexvirus: DE, drug effects  
CN 0 (Antiviral Agents); 0 (Bioflavonoids); 0 (Plant Extracts)

=> fil wpids

FILE 'WPIDS' ENTERED AT 11:01:59 ON 03 JUL 2000  
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FILE LAST UPDATED: 30 JUN 2000 <20000630/UP>  
>>>UPDATE WEEKS:  
MOST RECENT DERWENT WEEK 200031 <200031/DW>  
DERWENT WEEK FOR CHEMICAL CODING: 200031  
DERWENT WEEK FOR POLYMER INDEXING: 200031  
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> D COST AND SET NOTICE DO NOT REFLECT SUBSCRIBER DISCOUNTS -  
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>>> FOR UP-TO-DATE INFORMATION ABOUT ALL 'NEW CONTENT' CHANGES TO  
WPIDS, INCLUDING THE DERWENT CHEMISTRY RESOURCE (DCR),  
PLEASE VISIT <http://www.derwent.com/newcontent.html> <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES,  
SEE <http://www.derwent.com/covcodes.html> <<<

=> d his 1130-

(FILE 'MEDLINE' ENTERED AT 10:56:53 ON 03 JUL 2000)

FILE 'WPIDS' ENTERED AT 10:57:02 ON 03 JUL 2000



L130 21 S ISOQUERCITRIN? OR ISO QUERCITRIN?  
E ISOQUERCITRIN/DCN  
E E3+ALL/DCN

L131 19 S E2

L132 34 S L130, L131

L133 21 SEA L132 AND M782/M0, M1, M2, M3, M4, M5, M6

L134 8 SEA L132 AND (Q262 OR Q263)/M0, M1, M2, M3, M4, M5, M6

L135 6 SEA L132 AND P210/M0, M1, M2, M3, M4, M5, M6

L136 0 SEA L132 AND P861/M0, M1, M2, M3, M4, M5, M6  
E BUCHHOLZ H/AU

L137 67 S E3-E9  
E WAGNER A/AU

L138 319 S E3-E13  
E KRAUS C/AU

L139 66 S E3-E7  
E MEDUSKI J/AU

L140 7 S E3-E5

L141 4 S L132 AND L137-L140

L142 24 S L133-L135, L141

L143 10 S L132 NOT L142

L144 34 S L142, L143

FILE 'WPIDS' ENTERED AT 11:01:59 ON 03 JUL 2000

=> d all abeq tech tot

L144 ANSWER 1 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
AN 2000-365386 [31] WPIDS  
DNC C2000-110284  
TI Orally applicable composition comprises a mixture of the bioflavonols  
isoquercetin or quercetin-4'-glucoside and rutin, optionally with  
quercetin, useful for protecting against oxidative damage to human organs,  
tissues and cells.

DC B02  
IN **BUCHHOLZ, H; MEDUSKI, J**  
PA (MERE) MERCK PATENT GMBH  
CYC 87  
PI WO 2000025795 A1 20000511 (200031)\* EN 8p A61K031-70

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SL SZ TZ UG ZW  
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB  
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU  
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR  
TT UA UG US UZ VN YU ZA ZW

ADT WO 2000025795 A1 WO 1999-EP7865 19991016  
PRAI EP 1999-105035 19990322; US 1998-106080 19981029  
IC ICM A61K031-70  
ICI A61K031:70; A61K031-70  
AB WO 200025795 A UPAB: 20000630

NOVELTY - Orally applicable composition comprises a mixture of the  
bioflavonols isoquercetin (quercetin-3-glucoside) or quercetin-4'-  
glucoside and rutin, optionally together with quercetin.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for:  
(1) maintaining a continued presence of high concentrations of  
bioflavonols in human plasma for an extended period of time comprising  
orally administering the above composition;  
(2) a pharmaceutical composition comprising a pharmaceutically active  
ingredient, a carrier and the above composition.

ACTIVITY - Antibacterial; antiviral; cardiant; cytostatic.

USE - The composition is useful for protecting against oxidative  
damage to human organs, tissues and cells; for supporting a  
pharmacological treatment of a disease or dysfunction caused by oxidative  
damage; or as a food supplement (all claimed). Also for preventing and  
treating cardiovascular disease and other damage to vascular tissues, for  
preventing neoplastic growth, for treating bacterial and viral diseases,  
and metabolic dysfunctions involving oxidative damages.

ADVANTAGE - The composition presents a bioflavanoid complex with delayed release of the bioflavonols assuring similar pharmacological and nutraceutical activity during a prolonged period of time.

DESCRIPTION OF DRAWING(S) - The diagram shows the results of a composition prepared by mixing 400 mg rutin with 100 mg isoquercetin.  
Dwg.1/1

FS CPI

FA AB; GI; DCN

MC CPI: B06-A01; B12-M10B; B14-A01; B14-A02; B14-F01B; B14-F02; B14-H01B; B14-S08

TECH UPTX: 20000630

TECHNOLOGY FOCUS - PHARMACEUTICALS - The composition comprises isoquercetin and rutin in a molar ration of 1:4 and when administered to humans, this composition maintains very similar concentrations of flavonols in the plasma up to 24 hours assuring similar pharmacological and nutraceutical activity. The composition may also comprise isoquercetin or quercetin-4'-glucoside, quercetin and rutin in a molar ratio of 1:1.5:3 and when administered to humans, maintains very similar concentrations of flavonols in the plasma up to 48 hours assuring similar pharmacological and nutraceutical activity

L144 ANSWER 2 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 2000-365365 [31] WPIDS

DNC C2000-110263

TI Compositions for treating transmethylation disorders, especially cardiovascular diseases e.g. atherogenic and thrombogenic diseases, comprise methyl and methylene donors, methyl transporters and bioflavonoids.

DC B02

IN BUCHHOLZ, H; MEDUSKI, J D

PA (MERE) MERCK PATENT GMBH

CYC 87

PI WO 2000025764 A2 20000511 (200031)\* EN 16p A61K031-00

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB  
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU  
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR  
TT UA UG US UZ VN YU ZA ZW

ADT WO 2000025764 A2 WO 1999-EP7689 19991013

PRAI US 1998-106205 19981030

IC ICM A61K031-00

AB WO 200025764 A UPAB: 20000630

NOVELTY - Compositions for treating transmethylation disorders comprise methyl and methylene donors, methyl transporters and bioflavonoids as active ingredients and optionally, one or more nutritional substances, solid, liquid and/or semiliquid excipients or auxiliaries.

DETAILED DESCRIPTION - Compositions comprise one or more active ingredients and optionally, one or more nutritional substances, solid, liquid and/or semiliquid excipients or auxiliaries. The active ingredient comprises:

(a) a component (A) comprising one or more compounds selected from methyl and methylene donors;

(b) a component (B) comprising one or more methyl transporters; and

(c) a component (C) comprising one or more bioflavonoids.

An INDEPENDENT CLAIM is also included for the use of one or more compounds selected from methyl and methylene donors, one or more transporters and one or more bioflavonoids in the preparation of a composition for treating transmethylation disorders.

ACTIVITY - Cardiant; antiarteriosclerotic; thrombolytic; hypotensive; cerebroprotective.

USE - For treating and preventing transmethylation disorders, cardiovascular diseases, atherogenic and/or thrombogenic diseases, diseases associated with hyperhomocysteinemia; premature occlusive arterial disease, severe vascular disease in infancy and childhood, progressive arterial stenosis, intermittent claudication, renovascular

hypertension, ischemic occlusion, cerebral occlusive arterial disease, occlusive peripheral arterial disease, premature death due to thromboembolic disease and/or ischemic disease (all claimed).

ADVANTAGE - The compositions are more effective than prior art preparations.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B06-A01; B06-D09; B10-A22; B10-B02H; B10-B02J; B12-M11B; B14-F01; B14-F02; B14-F04; B14-N16

TECH UPTX: 20000630

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Component (C) comprises one or more compounds selected from mono-, di-, or triglycoside bioflavonoids containing the aglycone quercetin.

L144 ANSWER 3 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 2000-364474 [31] WPIDS

DNC C2000-109946

TI Suppository composite for treating fever and influenza comprises radix bupleuri scorzonerifolium, flos lonicerae japonicae, fructus forsythiae, fructus arctii, herba schizonepetae and calculus bovis.

DC B05

IN HSU, W; KENG, S

PA (HSUW-I) HSU W; (KENG-I) KENG S

CYC 1

PI US 6063383 A 20000516 (200031)\* 17p A01N025-00

ADT US 6063383 A US 1999-238744 19990128

PRAI US 1999-238744 19990128

IC ICM A01N025-00

ICS A01N065-00; A61K035-78; A61K039-385; A61K047-00

AB US 6063383 A UPAB: 20000630

NOVELTY - A suppository composite for treating fever and influenza comprises 2750 to 3250g of radix bupleuri scorzonerifolium wild, 1750 to 2250g of flos lonicerae japonicae, 1950 to 2450g of fructus forsythiae, 1650 to 2150g of fructus arctii, 2550 to 3050g of herba schizonepetae, 50 to 550g of calculus bovis and 870 to 1370g of suppository excipient.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for preparation of the suppository comprising:

(a) distilling a mixture of radix bupleuri scorzonerifolium wild, fructus forsythiae, herba schizonepetae and water to give volatile oils, an aqueous solution and gruffs;

(b) mixing the gruffs with flos lonicerae japonicae, fructus arctii and water and filtering to give filtered gruffs and a decoction;

(c) adding water to the filtered gruffs and filtering to give a second decoction;

(d) concentrating the aqueous solution and decoctions to give a concentrate with a density of 1.2 to 1.25 at 70 to 80 deg. C;

(e) extracting the concentrate with ethanol and concentrating the extract to give a powder; and

(f) mixing the dry powder with calculus bovis, volatile oil and excipient and then heating and moulding the mixture to give the suppository composite.

ACTIVITY - Anti-pyretic.

MECHANISM OF ACTION - None given.

USE - The suppositories are useful for treating fever and influenza.

Dwg.0/6

FS CPI

FA AB; DCN

MC CPI: B01-D01; B01-D02; B06-A01; B06-A02; B06-A03; B07-A02B; B09-D01; B09-D02; B10-C04A; B10-D01; B10-E04A; B10-E04D; B10-F02; B10-J02; B12-M08; B14-A02B2; B14-C04

TECH UPTX: 20000630

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Method: The mixture in step (a) is preferably infused for 2-hours 1 volume and 5 volumes of water and gives 6ml of volatile oil and 6000ml of aqueous distillate. The mixture in step (b) is preferably infused with 1 volume of water for 1

hour and distilled to form the decoction or infused with 5 volumes of water and gives 30000ml of decoction. The mixture in step (c) is preferably infused with 4 volumes of water for 1 hour and filtered to give 20000ml of filtrate. The mixture is preferably concentrated in step (d) to give 11000ml of concentrate which is mixed with 40000ml of 95% ethanol for 24 hours. Step (e) preferably gives 1000g of powder and the mixture in step (f) gives 1120 suppositories with a weight of 2g.

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The radix bupleuri scorzonrifolium wild preferably includes volatile oil containing beta-terpinene, limonene, camphene, beta-fenchene, pulegone, isoborneol, beta-terpineol, linalool, alpha-copaene, humulene, alpha-farnesene, aromadendrene, cis-caryophyllene, iso-caryophyllene, beta-elemene, gamma-murolene, patchoulane, nootkatone and ledol and preferably includes 0.15% of saikosaponin (containing bupleurum saponin-a, bupleurum saponin-d and bupleurum saponin-c). It preferably also contains sorbitin, sorbiphenol-7-rhamnosin, quercetin, isoquercetin, isorhamnetin, rutin and narcissin. The fructus forsythiae preferably includes esters, ketones (rutin), phenyl ethane compounds (forsythoside-a, forsythoside-c, forsythoside-d, forsythoside-e, suspensaside and salidroside), ethyl cyclic-hexatone (cornoside, rengyol, isorengyol, rengyoxide, rengyolone and rengyoside-a, -b and -c) and triterpenes (betulinic acids, oleanolic acids, ursolic acids, beta-amyrin acetate, iso-bauerenyl acetate, 20-(S)-dammar-24-ene-3beta and 20-diol-3-acetate), especially forsythin, phillygenin, pinoresinol and pinoresinol-beta-D-glucoside. The herba schizonepetae preferably includes a volatile oil comprising pulegone, menthone, isomenthone, isopulegone, 1-ethoxypentane, 3-methylcyclopentanone, 3-methylcyclohexanone, benzaldehyde, 1-octen-3-ol, 3-octanone, 3-octanol, cymene, limonene, neomenthol, menthol, piperitone, piperitenone, humulene, caryophyllen, beta-pinene, 3,5-dimethyl-2-cyclohexen-1-one, ethenyl dimethyl benzene, cineole, carvone, dihydrocarvone, verbenone, monoterpene compounds, ketones and phenol acids. The flos lonicerae japonicae preferably includes chlorogenic acid, isochlorogenic acid, ginnol, beta-sitosol, stigmasterol, beta-sitosol, stigmasterol-D-glucoside, linalool, cis-6,6-trimethyl-2-vinyl-5-hydroxy-tetrahydropyran, ethylpalmitate, 1,1'-bicyclohexyl, methylolinoleate, 3-methyl-2-(2-pentenyl), tran-tran-farnesol, ethyllinolenate, beta-cubebene, cis-3-hexen-1-ol, alpha-terpineol, benzyl alcohol, 2-methyl-1-butanol, benzylalcohol, phenethylalcohol, cis-linalooloxide, eugenol and carvacrol. The calculus bovis preferably comprises bilirubin, cholic acid, deoxycholic acid, bile salts, cholesterol, ergosterol, fatty acids, lecithine, vitamin D, calcium, sodium, iron, potassium, copper, magnesium, phosphorus, para-carotene, alanine, glycine, taurine, aspartic acid, arginine, leucine, methionine, SMC-S2 and SMC-F. The fructus arctii preferably comprises arctiin, hydrolysed arctigenin, glucose, amatairesinol, trachelogenin, sesquillignan AL-D and AL-F arctiin, lappaol A, B, C, D, E, F, and H, arachic acid, stearic acid, palmitic acid and linoleic acid. The excipient is preferably cocoa butter.

L144 ANSWER 4 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 2000-294038 [26] WPIDS  
 DNC C2000-088981  
 TI Use of butylhydroxytoluene for stabilizing flavone, flavanone and/or flavonoid useful in cosmetic and dermatological formulations.  
 DC D21 E13 E17  
 IN MAX, H; SCHOENROCK, U; STAEB, F; UNTIEDT, S  
 PA (BEIE) BEIERSDORF AG  
 CYC 25  
 PI DE 19845266 A1 20000406 (200026)\* 19p A61K007-48  
 EP 998899 A1 20000510 (200027) DE A61K007-00  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI  
 ADT DE 19845266 A1 DE 1998-19845266 19981001; EP 998899 A1 EP 1999-119017  
 19990928  
 PRAI DE 1998-19845266 19981001  
 IC ICM A61K007-00; A61K007-48  
 ICS A61K007-42; C09K015-08

AB DE 19845266 A UPAB: 20000531  
NOVELTY - Butylhydroxytoluene is used for stabilizing flavones, flavanones and/or flavonoids against chemical degradation, especially photochemical and/or oxidative degradation.

USE - The combination is used in cosmetic or topical dermatological formulations (claimed), suitable for skin care and protecting skin, especially sensitive and aged or aging skin, e.g. for the treatment or prophylaxis of erythematous, inflammatory, allergic and autoimmune conditions and photodermatosis, especially polymorphic photodermatosis. The combination is useful in e.g. skin and hair cosmetics such as hair colors, lacquers, shampoos, color shampoos, nail varnish, lipstick, foundation, washing and shower formulations and skin creams.

ADVANTAGE - Adding butylhydroxytoluene protects the formulations from oxidation before use and after application to the skin. The combination with flavone (derivatives) is a synergistic mixture giving effective protection against harmful oxidation processes in the skin and in the formulation.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D08-B; E06-A01; E10-E02E1

TECH UPTX: 20000531

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The active compound is alpha-glucosyl rutin.

Preferred Composition: The flavone(s), flavanone(s) and/or flavonoids are used in effective amounts for cosmetic or topical dermatological formulations, preferably in concentrations of 0.01-10, especially 0.05-5, more especially 0.1-2.0 wt. %. The butylhydroxytoluene concentration is 0.001-10, especially 0.05-5, more especially 0.1-2.0 wt. % with respect to the total formulation.

L144 ANSWER 5 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 2000-237760 [20] WPIDS

DNC C2000-072420

TI New synergistic antioxidant food supplement useful in the prevention of e.g. arteriosclerosis, cardiovascular diseases and bacterial and viral infections containing ascorbic acid and quercetin glucoside derivatives.

DC B02 B03 D13

IN BUCHHOLZ, H; MEDUSKI, J

PA (MERE) MERCK PATENT GMBH

CYC 20

PI WO 2000012085 A1 20000309 (200020)\* EN 19p A61K031-35

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

W: JP US

ADT WO 2000012085 A1 WO 1999-EP6166 19990823

PRAI US 1998-141781 19980827

IC ICM A61K031-35

ICS A23L001-30; A23L001-302; A61K031-375

AB WO 200012085 A UPAB: 20000426

NOVELTY - Oral composition containing ascorbic acid or ascorbate or its derivative in combination with one or more derivatives selected from quercetin-3-O-glucoside (isoquercetin), quercetin-4'-glucoside, quercetin-3'-glucoside and quercetin-7-glucoside.

ACTIVITY - Antiarteriosclerotic; antiallergic; antiinflammatory, antibacterial; cytostatic; antiviral. No activity data given.

MECHANISM OF ACTION - Antioxidant.

USE - The composition is useful as a food supplement for maintaining long biological activity and high concentration of ascorbate and isoquercetin in human organs, especially skin, tissues and cells to protect against oxidative damage. It is particularly useful in the prevention of arteriosclerosis, cardiovascular diseases, allergic and inflammatory disorders, bacterial and viral infections, metabolic dysfunctions e.g. premature aging and other pathologic conditions involving oxidative damage, as well as in the support of pharmacologic treatments of diseases and dysfunctions caused by oxidative damages (all claimed). The compositions are also useful in preventing and treating

certain forms of cancer.

ADVANTAGE - Isoquercetin effectively inhibits ascorbate oxidation and maintains the reduced form of ascorbic acid to maintain ascorbic acid levels in body tissues and fluids. Isoquercetin and ascorbate interact synergistically to give higher activities of both components.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B03-F; B06-A01; B14-A01; B14-A02; B14-C03; B14-E11; B14-F01; B14-F02; B14-F07; B14-G02A; B14-H01; B14-L06; B14-S08; B14-S09; D03-H01T

TECH UPTX: 20000426

TECHNOLOGY FOCUS - PHARMACEUTICALS - Isoquercetin is present in combination with ascorbic acid or of a physiologically active ascorbate in form of its sodium, calcium, other mineral or organic salts. Other ingredients can be present such as vitamins, Mg, Ca, K and Fe, trace elements. The composition contains ascorbic acid or ascorbate and isoquercetin in a 2:1-1:2 (preferably 1:1) molar ratio.

L144 ANSWER 6 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1999-581207 [50] WPIDS

DNC C1999-169292

TI Formulations containing isoquercitrin as an antiviral agent or skin protectant.

DC B02 B07 D21 E19

IN BUCHHOLZ, H; KRAUS, C; WAGNER, A; MEDUSKI, J

PA (MERE) MERCK PATENT GMBH

CYC 21

PI DE 19809304 A1 19990909 (199950)\* 6p A61K007-42

WO 9944578 A1 19990910 (199950) DE A61K007-42

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

W: CA JP US

ADT DE 19809304 A1 DE 1998-19809304 19980305; WO 9944578 A1 WO 1999-EP1104 19990220

PRAI DE 1998-19809304 19980305

IC ICM A61K007-42

ICS A61K007-027; A61K009-72; A61K031-35

AB DE 19809304 A UPAB: 19991201

NOVELTY - Isoquercitrin (I) is used in cosmetic or medicinal formulations.

ACTIVITY - Antiviral; skin protectant.

MECHANISM OF ACTION - None given.

USE - (I) is useful in the formulations as an antiviral agent (especially against herpes) and/or as an agent for protecting the skin against the sun's rays.

ADVANTAGE - (I) is well tolerated by the skin and does not cause significant toxic or allergic reactions.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B03-A; B03-F; B04-B01C1; B04-B03A; B04-B04M; B05-A03; B06-A01; B07-D13; B10-E02; B10-F02; B14-A02A3; B14-R05; D08-B09A; D09-E; E06-A01; E07-A02B; E07-D12; E07-D13B; E10-E02F1; E10-F02A2; E10-J02A2; E35-C; E35-K02

TECH UPTX: 19991201

TECHNOLOGY FOCUS - PHARMACEUTICALS - The formulation is in the form of (i) a salve, cream, milk, lotion, emulsion, oil, gel, stick or spray for application to the skin, (ii) a mouth, nose or inhalation spray or (iii) tablets, dragees, capsules, a syrup, a juice or drops. The composition may also comprise UV-A filters and/or UV-B filters. The UV filters are, e.g., a benzophenone, a benzoyl- or dibenzoyl-methane derivative of a cinnamic acid ester, a triazine, a salicylate, zinc oxide or titanium dioxide. The antiviral effect of (I) can be synergistically enhanced using antiviral materials such as 5-ethyl-deoxyuridine, quercetin, galangin, apigenin, propolis, isorhamnetin, carotenes, ascorbic acid, quercitrin, catechin, rutin or camphor oil. The formulation comprises

103

0.01-40 (especially 0.01-10) wt.% of (I). The amount of light filter present in the formulation is 0.01-40 wt.%. The amount of (I) is especially 0.1-90 wt.% (based on the total amount of light filter present in the formulation).

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - The formulation is in the form of (i) a salve, cream, milk, lotion, emulsion, oil, gel, stick or spray for application to the skin, (ii) a mouth, nose or inhalation spray or (iii) tablets, dragees, capsules, a syrup, a juice or drops. The composition may also comprise UV-A filters and/or UV-B filters. The UV filters are, e.g., a benzophenone, a benzoyl- or dibenzoyl-methane derivative of a cinnamic acid ester, a triazine, a salicylate, zinc oxide or titanium dioxide. The antiviral effect of (I) can be synergistically enhanced using antiviral materials such as 5-ethyl-deoxyuridine, quercetin, galangin, apigenin, propolis, isorhamnetin, carotenes, ascorbic acid, quercitrin, catechin, rutin or camphor oil. The formulation comprises 0.01-40 (especially 0.01-10)wt.% of (I). The amount of light filter present in the formulation is 0.01-40 wt.%. The amount of (I) is especially 0.1-90 wt.% (based on the total amount of light filter present in the formulation).

L144 ANSWER 7 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1999-470178 [40] WPIDS  
 DNC C1999-138164  
 TI Use of flavone, flavanone or flavonoid compound for protection of ascorbic acid or ascorbyl compound against oxidation, especially in cosmetic and dermatological preparations,.  
 DC B02 B03 B05 D21 E13 E19  
 IN KRUSE, I; SCHOENROCK, U  
 PA (BEIE) BEIERSDORF AG  
 CYC 26  
 PI DE 19807774 A1 19990826 (199940)\* 18p A61K007-42  
 EP 945128 A2 19990929 (199945) DE A61K007-48  
 'R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI  
 JP 11279167 A 19991012 (199954) 16p C07D307-62  
 ADT DE 19807774 A1 DE 1998-19807774 19980224; EP 945128 A2 EP 1999-101745  
 19990211; JP 11279167 A JP 1999-41753 19990219  
 PRAI DE 1998-19807774 19980224  
 IC ICM A61K007-42; A61K007-48; C07D307-62  
 ICS A61K007-00; A61K007-06; A61K007-40; A61K031-375  
 AB DE 19807774 A UPAB: 19991004  
 NOVELTY - Use of a flavone (IA), flavanone (IB) and/or flavonoid (IC) to protect ascorbic acid or ascorbyl compounds against oxidation, including photo-oxidation is claimed.  
 ACTIVITY - None given.  
 MECHANISM OF ACTION - None given.  
 USE - In preparations for skin and hair care, especially hair colors, hair sprays and shampoos, as well as other cosmetics, e.g. nail varnish, lipstick and make up.  
 ADVANTAGE - Compared with known antioxidants, the use of (IA)-(IC) together with vitamin C or an ascorbyl compound provides an improved antioxidant and radical scavenging activity, better protection against inflammatory reactions and photo-reactions, an improved protective effect against the bonding of photo-products to lipids, DNA and proteins and a better effect against skin aging.  
 Dwg.0/0  
 FS CPI  
 FA AB; DCN  
 MC CPI: B03-F; B06-A01; B10-B01; B14-N17; B14-R01; B14-R02; B14-R05; B14-S08;  
 D08-B09A; D09-E; E06-A01; E07-A02B; E10-B01C; E10-B02E; E10-C02A;  
 E10-C02F  
 TECH UPTX: 19991004  
 TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Method: (IA)-(IC) are used in cosmetic or dermatological preparations, preferably in a concentration of 0.01-10 wt.%, especially 0.05-5 wt.%, particularly 0.1-2 wt.%, based on

the finished preparation. The cosmetic or dermatological preparations may contain a complex former, especially tartaric acid, citric acid or an aminopolycarboxylic acid, e.g. ethylenediaminetetraacetic acid (EDTA), nitrilotriacetic acid, hydroxyethylenediaminotriacetic acid, diethyleneaminopentaacetic acid or trans-1,2-diaminocyclohexanetetraacetic acid, or an anion of any of these acids. The content of complex former is 0.01-10 wt.%, especially 0.05-5 wt.%, particularly 0.1-2 wt.%, based on the final preparation. When the preparations contain an ascorbyl compound, this is preferably an ascorbyl 1-25C alkyl ester, especially a fatty acid ester, particularly ascorbyl palmitate.

Preferred Flavone: The flavone (IA) is flavone, flavonol, chrysin, galangin, apigenin, fisetin, luteolin, kaempferol, quercetin, morin, robinetin, gossypetin or myricetin.

Preferred Flavonoid: The flavonoid (IC) has formula (ICa) or (Icb):  
Z1-Z7 = H; OH; 1-18C alkoxy; or 1-18C hydroxyalkyl;

Gly = mono- or oligoglycoside group.

Especially preferred flavonoids are alpha-glucosylrutin, alpha-glucosylmyricitrin, alpha-glucosylisoquercitrin, alpha-glucosylquercitrin, naringin, hesperidin, rutin, troxerutin, monoxerutin, dihydrorobinetin, taxifolin, eriodictyol-7-glucoside, flavanomarein and **isoquercitrin**. alpha-Glucosylrutin is particularly preferred.

L144 ANSWER 8 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1999-470085 [40] WPIDS

DNC C1999-138111

TI Combination of (acyl) carnitine and oxidant for use in skin care, effective e.g. against light-induced damage and inflammation.

DC B02 B05 D21

IN MAX, H; SCHOENROCK, U; SCHREINER, V; STAEB, F; UNTIED, S; HEINER, M; UNTIEDT, S

PA (BEIE) BEIERSDORF AG

CYC 25

PI DE 19806890 A1 19990826 (199940)\* 18p A61K007-48

EP 945126 A2 19990929 (199945) DE A61K007-48

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI

DE 19861145 A1 20000330 (200023) A61K007-48

ADT DE 19806890 A1 DE 1998-19806890 19980219; EP 945126 A2 EP 1999-101742  
19990211; DE 19861145 A1 Div ex DE 1998-19806890 19980219, DE  
1998-19861145 19980219

FDT DE 19861145 A1 Div ex DE 19806890

PRAI DE 1998-19806890 19980219; DE 1998-19861145 19980219

IC ICM A61K007-48

ICS A61K007-42

AB DE 19806890 A UPAB: 19991004

NOVELTY - An active agent combination comprises: (A) at least one of carnitine and acyl carnitines; and (B) at least one antioxidant, preferably a flavone and/or flavanone derivative, especially a flavonoid.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for cosmetic or dermatological preparations containing (A) and (B).

ACTIVITY - Skin protectant; dermatological; hair growth stimulant; antiinflammatory.

MECHANISM OF ACTION - Antioxidant; collagen, hyaluronic acid, elastin and DNA synthesis stimulant; cell replication and regeneration promoter.

USE - For skin care and protection, specifically for the treatment or prevention of: deficiency, sensitive or hypoactive skin conditions; visible signs of aging such as wrinkles, spots or teleangiectasis; skin damage caused by environmental agents (e.g. smoke, smog, active oxygen species or free radicals) or especially light; pigmentation disorders; pruritis; dry skin states and barrier dysfunction; hair loss and hair growth deficiency; and inflammatory skin disorders such as atopic or seborrheic eczema, polymorphic photodermatitis, psoriasis and vitiligo. (I) is also useful for topical pre- or post-treatment of patients before laser or abrasion treatment (e.g. to remove wrinkles or scars), to reduce inflammation and promote skin regeneration.

ADVANTAGE - The combination of (A) and (B) has a lasting effect



against a wide range of UV-induced and other skin disorders, and is free of side-effects. It soothes sensitive or irritated skin; stimulates synthesis of collagen, hyaluronic acid and elastin; stimulates intracellular DNA synthesis, especially in deficiency or hypoactive states of the skin; promotes cell replication and skin regeneration; and promotes the intrinsic protective and reparative mechanisms of the skin (e.g. to counteract dysfunctional enzymes, DNA, lipids or proteins).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B06-A01; B10-A22; B14-C03; B14-N17; B14-S08; D08-B03; D08-B09A

TECH UPTX: 19991004

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Components: The acylcarnitine is acetylcarnitine. The flavone derivative is alpha-glucosylrutin, naringin, hesperidin, rutin, troxerutin, monoxerutin, dihydrorobinetin, taxifolin, eriodictyol-7-glucoside, flavanomarein, quercetin or **isoquercitrin**.

Preferred Composition: The molar ratio of (A) to (B) is 1-10:10-1, especially 1-2:2-1. The pharmaceutical or dermatological compositions contain 0.001-10 wt.% each of (A) and (B).

XA

L144 ANSWER 9 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1999-348386 [30] WPIDS

DNC C1999-102794

TI Use of flavone derivatives in cosmetic or dermatological compositions.

DC B07 D21 E13 E14

IN GERS-BARLAG, H; SCHEEL, O

PA (BEIE) BEIERSDORF AG

CYC 2

PI DE 19755504 A1 19990617 (199930)\* 13p A61K007-44

US 5952391 A 19990914 (199944) A61K031-12

ADT DE 19755504 A1 DE 1997-19755504 19971213; US 5952391 A US 1998-205435 19981204

PRAI DE 1997-19755504 19971213

IC ICM A61K007-44; A61K031-12

AB DE 19755504 A UPAB: 19990802

NOVELTY - Flavone derivatives (e.g. quercetin) are useful as additives for cosmetic and dermatological compositions, in order to stabilize dibenzoylmethane compounds used as ultraviolet light absorbers.

DETAILED DESCRIPTION - The use of flavone and flavonone derivatives (preferably flavonoids) is claimed for stabilizing substances present in cosmetic and dermatological compositions against ultraviolet-induced decomposition. These substances have a dibenzoylmethane structure.

USE - The flavones are useful as stabilizers for dibenzoylmethane sunscreens.

ADVANTAGE - Dibenzoylmethane compounds (e.g. 4-(tert.-butyl)-4'-methoxydibenzoylmethane) are known to be effective as sunscreens, but they are unstable in the presence of UV light. Known stabilizers for these compounds include 4-methylbenzylidene campher, but this compound is difficult to formulate. The use of flavones as stabilizers overcomes this disadvantage, and provides drastically improved UV stability for 4-(tert.-butyl)-4'-methoxydibenzoylmethane, regardless of whether this compound is dissolved in polar or unpolar oils.

f

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B06-A01; B10-F02; B12-M06; B14-R01; B14-R05; B14-S08; D08-B; E06-A01; E10-F02A2

TECH UPTX: 19990802

TECHNOLOGY FOCUS - PHARMACEUTICALS - The flavone derivatives are selected from rutin, troxerutin, monoxerutin, dihydrorobinetin, taxifolin, eriodictyol-7-glucoside, quercetin, isoquercitrin, fisetin, luteolin, robinetin, gossypetin and myricetin. The flavone compounds are present in a concentration of 0.01-10 (preferably 0.1-5, especially 0.2-2.0) wt. %. The dibenzoylmethane compound, which is selected from 4-isopropylidibenzoylmethane and 4-(tert.-butyl)-4'-methoxydibenzoylmethane,

is present at a concentration of 0.1-10.0 (preferably 0.5-6.0) wt. %. The ratio of flavone compound to dibenzoylmethane compound is 8:1-1:5 (preferably 4:1-1:2, especially 3:1-1:1).

L144 ANSWER 10 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1999-338816 [29] WPIDS  
 DNC C1999-099842  
 TI Cosmetic or dermatological preparation containing **isoquercitrin** as antioxidant and radical scavenger, useful for protection of skin or hair.  
 DC B02 D21 E13  
 IN KEYHANI, R; MAX, H; SCHOENROCK, U; STAEB, F  
 PA (BEIE) BEIERSDORF AG  
 CYC 1  
 PI DE 19753983 A1 19990610 (199929)\* 11p A61K007-42  
 ADT DE 19753983 A1 DE 1997-19753983 19971205  
 PRAI DE 1997-19753983 19971205  
 IC ICM A61K007-42  
 ICS A61K007-027; A61K007-48  
 AB DE 19753983 A UPAB: 19990723  
 NOVELTY - Use of **isoquercitrin** (I) (i.e. 3,3',4',5,7-pentahydroxyflavanone 3-( beta -D-glucopyranoside)) as antioxidant and/or radical scavenger in cosmetic or dermatological preparations.  
 ACTIVITY - Anti-inflammatory; antiallergic; dermatological.  
 MECHANISM OF ACTION - Antioxidant; radical scavenger.  
 USE - (I) is useful for:  
 (1) treatment or prophylaxis of erythematous, inflammatory, allergic or autoimmune skin disorders, especially dermatoses, associated with undesirable oxidation processes;  
 (2) treatment or prophylaxis of light-sensitive skin, especially to combat photodermatosis;  
 (3) prevention of oxidation-induced skin aging;  
 (4) protection of hair against oxidative damage caused by UV radiation or by oxidizing agents (e.g. hydrogen peroxide) used in treatments such as dyeing or bleaching; and  
 (5) protection of the components of cosmetic, make-up or dermatological preparations against oxidative or photo-oxidative degradation during storage.  
 ADVANTAGE - (I) is more stable in cosmetic or dermatological preparations than comparable prior art agents (e.g. vitamin C), and has good activity against oxidation, radicals, binding of harmful photochemical products to lipids DNA and proteins, skin aging, photochemical reactions in skin and inflammatory reactions.  
 Dwg.0/0  
 FS CPI  
 FA AB; DCN  
 MC CPI: B06-A01; B14-C03; B14-G02; B14-N17; B14-R01; B14-R02; D08-B03; D08-B09A; E06-A01

L144 ANSWER 11 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1998-521261 [44] WPIDS  
 DNC C1998-156666  
 TI Security paper which forms an indelible colour on contacting organic solvent - comprising a metal mordant and mordant dye, useful in preventing fraud by altering official documents, cheques, identity documents etc..  
 DC E19 E24 F09 G04  
 IN RITTENHOUSE, D A  
 PA (GEOP) GEORGIA PACIFIC CORP  
 CYC 80  
 PI WO 9841688 A1 19980924 (199844)\* EN 18p D21H021-46  
 RW: AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA  
 PT SD SE SZ UG ZW  
 W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE  
 GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG  
 MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG  
 UZ VN YU ZW

AU 9866971 A 19981012 (199907) D21H021-46  
 ADT WO 9841688 A1 WO 1998-US4732 19980312; AU 9866971 A AU 1998-66971 19980312  
 FDT AU 9866971 A Based on WO 9841688  
 PRAI US 1997-819565 19970314  
 IC ICM D21H021-46  
 AB WO 9841688 A UPAB: 19981104

A security paper which forms an indelible colour when contacted with an organic solvent comprising a web of cellulosic fibres, the web containing a metal mordant chemically isolated from a mordant dye capable of forming a covalent bond with the metal mordant to produce an organic solvent-insoluble coloured reaction product which remains entrapped in the web when the paper is washed with an organic solvent.

Also claimed is making the above security paper by contacting a cellulose fibres paper substrate with a metal mordant, contacting the substrate with a mordant dye capable of forming a coordinate covalent bond with the metal mordant to produce an organic solvent-insoluble coloured reaction product, wherein one of the reactants is isolated from the other by encapsulation with a water-insoluble and organic solvent-soluble material, whereby the coloured reaction product remains entrapped in the substrate when the substrate is washed with an organic solvent.

Preferably one of the reactants is isolated from the other on the web by encapsulation with a water-insoluble and organic solvent-soluble material. The metal mordant has pKa above 8. It is selected from Fe, Mn, Sn, Ni, Ca, Al, Cu, Cd, Cr, Co, Pb, Hg and Mg. The mordant dye is selected from alizarine blue, alizarine orange, alizarine yellow, aluminon, 1-aminoanthraquinone-2-carboxylic acid, o-aminobenzoic acid, 3-amino-2-naphthoic acid, 1-amino-2-naphthol-4-sulphonic acid, ampelopsin, anacardic acid, anthragallol, bacalein, 5-bromoanthranilic acid, 3'-carboxy-4'-hydroxycinchophen, carminic acid, catechin, o-cresotic acid, delphinidin chloride, 2,3-diaminophenazine, 2,4-diaminophenol, digallic acid, dimethylglyoxime, echinochrome, 'eriochrom black T' (RTM), eriodictyol, ethyl thiocyanate, ferrocyanidion, fisetin, flavone, fustin, gallacetophenone, gallamide, gallein, gallic acid, gentisic acid, alpha-glucogallin, beta-glucogallin, gossypol, hematein, hematoxylin.

USE - The security paper is useful for handwritten payment vouchers, official documents, eg. bank cheques, travellers cheques, identity documents, eg. passports etc.

ADVANTAGE - The security paper is compatible with commercial papermaking techniques and forms an indelible colour when treated with an organic solvent, thus preventing fraud by clearly indicating the chemical removal of ink from the paper by dissolution in organic solvents.

Dwg.0/0

FS CPI  
 FA AB; DCN  
 MC CPI: E25; F05-A06D; G04-B

L144 ANSWER 12 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1998-002833 [01] WPIDS  
 DNC C1998-001128  
 TI Stamina-enhancing drinks and foods - contain extract from Crataegus plant, Rosaceae.  
 DC D13  
 PA (MEIJ) MEIJI SEIKA KAISHA LTD  
 CYC 1  
 PI JP 09266767 A 19971014 (199801)\* 5p A23L001-30  
 ADT JP 09266767 A JP 1996-77700 19960329  
 PRAI JP 1996-77700 19960329  
 IC ICM A23L001-30  
 ICS A23L002-38; A23L002-52  
 ICA A61K035-78  
 AB JP 09266767 A UPAB: 19980107

Drinks and foods contain 1-10% extract from a Crataegus plant, Rosaceae.

The extract is prepared by extracting the plant with water or ethanol and purifying the extract to obtain a low polar fraction. The extract contains at least 1 tannin, such as chlorogenic acid and epicatechin, and flavone glycosides, such as rutin, **isoquercitrin** and hyperin.

The foods and drinks contain at least 1 extract of hydrangia, Zizyphi Fructus, Glycyrrhizae Radix, 'Rakanka' (Chinese herb), Lycium chinense Mill., Solanaceae, Cinnamomi Cortex, Zizyphi Spinosi Semen, Gardeniae Fructus, Coix lacryma-jobi L. var. ma-yuen Stapf, Gramineae, An gelica keiskei Koidz., Umbelliferae, Isodonis Herba, the leaf of Diospyros kaki Thumb., Ebenaceae, 'Soba' (Chinese herb), german chamomile, Aurantii Pericarpium, Sasa albo-marginata and 'Amachazuru' (Cucurbitaceae plant, Chinese herb).

USE - The drinks and foods enhance stamina.

ADVANTAGE - The foods and drinks give a fresh feel on drinking. The combination with crude drugs masks acidic taste, improves flavour and facilitates food intake.

Dwg.0/2

FS CPI  
FA AB  
MC CPI: D03-H01G; D03-H01T2

L144 ANSWER 13 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1997-266467 [24] WPIDS

DNC C1997-085670

TI Foods and drinks for eradicating active oxygen and free radicals - contain flavonol glycoside readily soluble in water.

DC B04 D13

PA (SANE-N) SANEIGEN FFI KK

CYC 1

PI JP 09094077 A 19970408 (199724)\* 4p A23L001-30

ADT JP 09094077 A JP 1995-253458 19950929

PRAI JP 1995-253458 19950929

IC ICM A23L001-30

ICS A23L001-03; A23L002-52; A61K031-35

AB JP 09094077 A UPAB: 19970612

Foods and drinks eradicating active oxygen and/or free radical contain a flavonol glycoside readily soluble in water. The flavonol glycoside includes quercetin monoglycoside, quercetin diglycoside, myricetin, monoglycoside and myricetin diglycoside, which is made by rearrangement of glucose or galactose residue.

The flavonol glycoside, e.g. quercetin-3-0-glycoside, may be prepared as follows: a suspension of 500 g rutin and 50 g naringinase in 100 L. water is kept at 50 degrees C. for 5 hours to yield 320 g **isoquercitrin**; this is mixed with 100 L. water, to which 800 g corn starch is added, and the mixture is kept at 55 degrees C. and pH 6.8 for 12 hours and then applied to a resin column (Dia-ion PH-21) to yield 550 g quercetin-3-0-glycoside.

USE - The foods and drinks remove active oxygen and free radicals which mediate a variety of diseases and ageing. The foods and drinks include Japanese cakes (e.g. rice cracker, candy), western cakes (e.g. cookies sponge cakes, waffle, pudding, butter cream, chocolate, candy, chewing gum, jelly), snacks (e.g. potato chip), popsicle (e.g. ice cream), lactic acid drinks, fruit juice, coffee, cocoa, tea, wine, beer, cheese soybean curd, pickles, delicatessen (e.g. ham, sausage), fish products (e.g. boiled fish paste, tube-shaped fish paste cake), etc., to which was added the flavonol glycoside in 0.001-5 wt.% preferably 0.01-2 wt.%.

ADVANTAGE - In an active oxygen and free radical eradication test, quercetin-3-0-glycoside has IC50 = 44 micro M and 36 micro M, respectively (cf. IC50 = 51 micro M and 43 micron M in rutin).

EXAMPLE - To a mixture of 12 wt.% fruit sugar/glucose, 0.1% citric acid and 0.1% flavour was added 0.1%, 0.5% or 5% quercetin-3-0-glycoside, and each mixture was filtered and sterilised to give 0.1%, 0.5% or 1% drink, respectively.

Dwg.0/0

FS CPI  
FA AB; DCN  
MC CPI: B06-A01; B14-E11; D03-H01T2

L144 ANSWER 14 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1997-149797 [14] WPIDS

CR 1993-284686 [36]  
 DNC C1997-047997  
 TI Compsn composed of water-soluble quercetin derivs - comprises enzymatic treatment of mono glucosyl rutin and rutin, useful as antiinflammatory or anodyne agent for pharmaceuticals and cosmetics.  
 DC B02 D16 D21 E13  
 PA (TOSE-N) TOYO SEITO KK  
 CYC 1  
 PI JP 09025288 A 19970128 (199714)\* 9p C07H017-07  
 ADT JP 09025288 A Div ex JP 1991-63358 19910327, JP 1996-173495 19910327  
 PRAI JP 1991-63358 19910327; JP 1996-173495 19910327  
 IC ICM C07H017-07  
 ICS C07H001-00; C12P019-44  
 AB JP 09025288 A UPAB: 19970407  
 Monoglucosyl rutin is sepd. (a) by reacting alpha-1,6-rhamnosidase on a mixt. of monoglucosyl rutin and rutin, next, by sepg. monoglucosyl rutin from the reaction mixt.; and (b) by reacting glucoamylase and alpha-1,6-rhamnosidase simultaneously or separatively on the mixt. of alpha-glucosylated rutin and rutin, next, by sepg. monoglucosyl rutin from the reaction mixt..  
 More specifically, the monoglucosyl rutin is sepd. from the mixt. of monoglucosyl rutin and **isoquercitrin** by crystallisation from alcohol.  
 USE/ADVANTAGE - High purity monoglucosyl rutin is sepd. efficiently from the mixt. of alpha-glucosyl rutin and rutin.  
 In an example, a 100g mixt. of alpha-glucosylated rutin and rutin was dissolved in a 1000ml water. To this, 1g ascorbic acid and 1g glucozyme were added. pH was adjusted at 4.5, and reacted, at 55 deg.C for 24 hours. To the reaction soln., 1g hesperidinase No.2 (Tanabe Seiyaku Co.) was added, pH was adjusted at 4.0, and reacted at 55 deg.C for 24 hours. The reaction soln. was inactivated by heating next, by treating with 1000 ml XAD-7, then after washing with water, treated with 2000 ml of 60% ethanol and 1000 ml water. Both solns. were combined, concn. 47g solid (purity 65%) was obtd.. This was recrystallised from 80 ml of 99% methanol. 25g of solid (purity 93%) was obtd..  
 Dwg.0/01  
 FS CPI  
 FA AB; DCN  
 MC CPI: B06-A01; B12-M05; B14-C02; B14-R01; D05-A02C; D08-B; E06-A01

L144 ANSWER 15 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1997-115173 [11] WPIDS  
 DNC C1997-036874  
 TI Polyphenol prepn. used as antioxidant in foods, cosmetics and medicines - comprises extracting hops, passing through gel-type synthetic adsorbent, washing and eluting with ethanol.  
 DC B04 D13 D21  
 PA (ASAK) ASAHI BREWERIES LTD  
 CYC 1  
 PI JP 09002917 A 19970107 (199711)\* 5p A61K007-00  
 ADT JP 09002917 A JP 1995-173931 19950619  
 PRAI JP 1995-173931 19950619  
 IC ICM A61K007-00  
 ICA A23L003-349; A61K031-05  
 AB JP 09002917 A UPAB: 19970313  
 Prodn. of polyphenol prepn. comprises extracting hop (pref. strobile) or the bract to give a water-soluble fraction; passing the fraction through a gel-type synthetic adsorbent; washing with water or aq. ethanol and eluting with EtOH or aq. EtOH.  
 Also claimed is a polyphenol prepn. obtained by the above method.  
 Polyphenol prepn. pref. contains 5-50 wt.% flavonoid glycoside such as rutin or **isoquercitrin**.  
 USE - The prepn. is useful as an antioxidant and used in foods, cosmetics and medicines.  
 In an example, hop (20g.) was pulverised in a mortar, extd. with 50 wt.% aq. EtOH at 80 deg.C for 20 min., filtered and cooled. The extract

was passed through a column of styrene-divinylbenzene resin, washed with water, eluted with 80 wt.% aq. EtOH (400 ml.) and lyophilised to give 600 mg. of polyphenol prepn. as odourless and bitter-tasting powder. The prepn. contained 46.4 wt.% catechin, 12.2 wt.% of rutin and 8.7 wt.% **isoquercitrin**. The prepn. showed a DPPH radical scavenging activity of 7.79 micromol/mg., compared with 4.01 micromol/mg. for alpha-tocopherol.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-C03D; B14-R01; B14-S08; D03-H01P; D08-B11

L144 ANSWER 16 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1996-306479 [31] WPIDS

DNC C1996-097597

TI Analgetic and antiinflammatory agent for treating headache and cancer analgesia - comprises aq. layer component obtd. by partitioning alcohol extract of *Maytenus ilicifolia* between water and chloroform.

DC B04

PA (NIMF) NIPPON MEKTRON KK

CYC 1

PI JP 08133981 A 19960528 (199631)\* 5p A61K035-78

ADT JP 08133981 A JP 1994-295546 19941104

PRAI JP 1994-295546 19941104

IC ICM A61K035-78

ICS A61K031-70; C07H017-07

AB JP 08133981 A UPAB: 19960808

Analgetic and antiinflammatory agent comprises aq. layer component obtd. by partitioning an alcohol extract of *Maytenus ilicifolia* between water and chloroform.

The effective component pref. comprises quercetin-3-O-glucoside.

ADVANTAGE - The extract is safe. The agent is useful for headache, abdominal pain and neuralgia, but also for cancer algesia.

In an example, dried *Maytenus ilicifolia* (3.2 kg) was extracted at reflux temp. with methanol 930 l) two times. The solvent was distilled off to give a methanol extract (153.3 g). The extract was partitioned between water and chloroform. The aq. layer was concentrated to give a yellowish brown powder (82.9 g). A soln. of the powder in water (300 ml) was chromatographed using a styrene/divinylbenzene copolymer resin (Daiaion HP-20, RTM) to 4 fractions (100 ml, respectively). The fraction eluted with 100 % methanol (4.5 g) was active. That fraction was column chromatographed (Sephadex LH-20 (100 g eluent: methanol) to give 120 fractions (100 ml, respectively). The 43-55th fractions were conc. to give a yellow powder (15.4 mg) which was identified as quercetin-3-O-glucoside.

Dwg.0/4

FS CPI

FA AB; DCN

MC CPI: B06-A01; B14-C01; B14-C03; B14-H01B

L144 ANSWER 17 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1996-057711 [06] WPIDS

DNC C1996-019155

TI Improving calcium absorption into bone - by oral admin. of calcium and flavonol aglycone glycoside, opt. as herbal extract, partic. for treatment of osteoporosis.

DC B05 D21

IN SAWRUK, S

PA (BIOD-N) BIODYN MEDICAL RES INC

CYC 1

PI US 5478579 A 19951226 (199606)\* 4p A01N043-04

ADT US 5478579 A CIP of US 1991-651189 19910206, CIP of US 1992-897003 19920601, US 1993-95738 19930721

PRAI US 1993-95738 19930721; US 1991-651189 19910206; US 1992-897003 19920601

IC ICM A01N043-04

ICS A61K031-715; C07G003-00; C07H015-00

AB US 5478579 A UPAB: 19960212  
 Calcium absorption into mammalian bone tissue is induced and enhanced by periodic oral admin. of a compsn. contg. (1) a flavonol aglycone glycoside (I); (2) nutritional calcium and (3) excipients.  
 Also new are the compsns. themselves, opt. also contg. K gluconate (II).

The glycosides are derived from the aglycones quercetin, kaempferol, myricetin and isorhamnetin, partic. **isoquercitrin** (Ia).

(I) may be provided in herbal extracts, e.g. of arnica montana, crataegifolium, farfarae flos, primulae flos, pruni spinosae flos, sanbuci flos, tiliae flos, petulae flioum, anserinae, equisetrum arvense, vigaureae and viola tricoloris.

USE - The compsns. are partic. used in treatment of osteoporosis but can also be used to strengthen teeth and nails.

Daily doses are 50-250 mg (I); 500-1500 mg Ca and opt. 50-250 mg (II). Compositions are conventional tablets, capsules or liq. formulations.

ADVANTAGE - (I) probably act as chelating agents for efficient transport of Ca to bone tissue.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-A08C2; B04-A10; B05-A01B; B06-A01; B14-N01; B14-N06; D08-A

L144 ANSWER 18 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1995-077960 [11] WPIDS

DNC C1995-035023

TI Peroral hair-nourishing agent - comprising alpha-glucosylated rutin, prevents hair loss and greying.

DC B04 D21

PA (TOSE-N) TOYO SEITO KK

CYC 1

PI JP 07002677 A 19950106 (199511)\* 7p A61K031-70

ADT JP 07002677 A JP 1993-147223 19930618

PRAI JP 1993-147223 19930618

IC ICM A61K031-70

ICS A61K007-06

ICA C07H017-07

AB JP 07002677 A UPAB: 19950322

Peroral hair-nourishing agent comprises alpha-glucosyalted rutin.

(1) Alpha-glucosyalted rutin, and (2) at least 1 of rutin, quercetin, **isoquercitrin**, hesperidin, naringin, methylhesperidin, and flavonoid cpds. comprising trans-glycosidated derivs..

USE - The peroral hair-nourishing agent is used for nourishing hair, and preventing hair loss or greying.

In an example, (1) 110g of alpha-glucosylated rutin ('Alpha-G rutin PS' contg. 82% of rutin on a conversion basis) 3000g lactose, 40g tartaric acid, and 5g stearic acid were mixed with addn. of 5% concn. starch paste aq. soln. as binder. Then the mixed material was formed into tablets of 0.3g wt. per tablet. 10 mg of alpha-G rutin PS (8.2 mg of rutin on conversion basis) was contained in one tablet of the agent.

(2) 30g of alpha-G rutin P (contg. 42% of rutin on conversion basis), 2.4 ml of orange oil, 0.6 ml of lemon oil, 0.24 ml of coriander, and 375 ml of single syrup were mixed with addn. of mixt. of ethanol/purified distilled water (ethanol content = 22%). 1 ml of the soln. contained 0.03g of alpha-G rutin P (12 mg of rutin on conversion basis).

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: B06-A01; B14-R02; D08-B03

L144 ANSWER 19 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1994-252686 [31] WPIDS

DNC C1994-115297

TI Oral compsn. contg. water-soluble glycoside derivs. - have collagenase inhibitory activity and are used to treat periodontal disorders.

DC B02 D21 E13  
PA (LIOY) LION CORP  
CYC 1  
PI JP 06183941 A 19940705 (199431)\* 8p A61K007-16  
ADT JP 06183941 A JP 1992-356341 19921221  
PRAI JP 1992-356341 19921221  
IC ICM A61K007-16  
ICS C07D311-30  
AB JP 06183941 A UPAB: 19940921  
Compsns. for use in oral cavity comprises water-soluble glycoside derivs. of formula (I). R1 = glucose or rhamnose residue, R2 = rhamnose residue or H, R3 = glucose residue, R4-R6 = OH, H, n = 1-5.  
(I) are pref. alpha-glucosyl rutin, alpha-glucosyl-myricitrin, alpha-glucosyl-**isoquercitrin** and alpha-glucosyl quercitrin. (I) is pref. present in compsns. in amt. of 0.1-1%.  
Toothpaste pastes contg. (I) can involve grinding agents, binders, viscosity-increasing agents, surfactants, sweeteners, preservatives, colouring agents and other effective components.  
USE/ADVANTAGE - (I) possess collagenase inhibitory activity and prevent the destruction of collagen and progress of local inflammations of the gingiva and connective tissues. The compsns. are useful in the prevention and treatment of periodontal disorders.  
In an example, a toothpaste was prepd. by mixing 45% Al(OH)3, 2% silica gel for gelation, 25% sorbit, 1% CMC Na, 1% sucrose mono:palmitate, 1.5% Na laurate, 0.2% saccharin Na, 0.1% Na benzoate, 0.1% alpha-glucosyl-rutin, 0.2% Me salicylate, 0.1% eugenol and water. Collagenase inhibition potencies of (I) were 78.1-95.9% and 93.1-100.0% at 0.05 mM and 0.25 mM respectively, which were shown to be equal or superior to those of tetracyclines (42.4 and 88.6%).  
Dwg.0/0  
FS CPI  
FA AB; GI; DCN  
MC CPI: B04-C02X; B06-A01; B14-D07C; B14-N06B; D08-A; E06-A01

L144 ANSWER 20 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
AN 1994-252685 [31] WPIDS  
DNC C1994-115296  
TI Compsn. for cleaning teeth - comprises a flavone selected from **isoquercitrin**, myristarin and iso rhamnetin.  
DC D21 E15  
PA (LIOY) LION CORP  
CYC 1  
PI JP 06183940 A 19940705 (199431)\* 6p A61K007-16  
ADT JP 06183940 A JP 1992-356340 19921221  
PRAI JP 1992-356340 19921221  
IC ICM A61K007-16  
AB JP 06183940 A UPAB: 19940921  
Mouth cleaning compsn. comprises, at least, a flavone selected from **isoquercitrin**, myristarin and iso-rhamnetin. The flavonol content is pref. 0.01-1 wt.%.  
USE - Used for cleaning teeth.  
Dwg.0/0  
FS CPI  
FA AB; GI; DCN  
MC CPI: D08-B08; E06-A01

L144 ANSWER 21 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
AN 1993-365156 [46] WPIDS  
DNC C1993-161848  
TI Active oxygen eliminating agents - contain super-oxide dismutase like substance, phenolic cpd. and sugar cpd..  
DC B04 D21  
PA (KATO-I) KATO K; (NAKA-I) NAKANO M; (RUIB-N) RUIBOSUTI JAPAN KK  
CYC 1  
PI JP 05271090 A 19931019 (199346)\* 4p A61K035-78  
ADT JP 05271090 A JP 1991-359878 19911227



PRAI JP 1991-359878 19911227

IC ICM A61K035-78

ICS A61K031-00

AB JP 05271090 A UPAB: 19940103

Agents contg. a superoxide dismutase (SOD) like substance, a phenolic cpd., partic. one or more of guaiacol, phenol, eugenol and phenylethanol, and a sugar cpd. such as a glycoprotein and glycoflavonoid, partic. one or more asparatin, orientin (lutexin), cisorientin (lutonaretin), isoquercitin, rutin and quercetin.

The compsns. contain 10,000-100,000 U/L of SOD-like substance, 0.1-10 mg/L of sugar cpd., 0.5-10 mg/ml of proteinous substances, 0.1-5 mg/L of phenolic cpd., and may further contain antioxidants (e.g. vitamin C and E, uric acid, glutathione and beta-carotene) and 10-500 mg/L of minerals (e.g. P, Fe, Ca, Na, K, Mg, Cu, Zn, Mn and Se). The compsns. are administered at 2-40 mg/kg/day.

USE/ADVANTAGE - Treatment of skin diseases (e.g. wart, acne and dermatitis) and allergic diseases supposed to be caused by active oxygen.

In an example, a soln. contg. 0.1-10 mg/L of glycoflavonoid, 0.5-10 mg/ml of protein and 0.1-5 mg/L of phenolic cpds. was adjusted to give 20,000 U/g of SOD-like and antioxidant activity and diluted to contain 0.1 mg/ml. The resultant soln. was orally administered at 300-500 ml/day for two weeks to 10 patients with diseases related to free radicals, 20 patients with bacterial and viral diseases and 18 patients with intractable skin diseases, respectively, and effective in eight, 15 and 13 patients, respectively, and ineffective in two, five and five patients, respectively.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-B02C2; B12-A07; D08-B09A

L144 ANSWER 22 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1993-365154 [46] WPIDS

DNC C1993-161846

TI Tissue lesion improving compsns. against skin and immune diseases - contain super oxide dismutase like substance, phenolic cpd..

DC B05 D21

PA (KATO-I) KATO K; (NAKA-I) NAKANO M; (RUIB-N) RUIBOSUTI JAPAN KK

CYC 1

PI JP 05271088 A 19931019 (199346)\* 3p A61K035-78

ADT JP 05271088 A JP 1991-359875 19911227

PRAI JP 1991-359875 19911227

IC ICM A61K035-78

ICS A61K031-00

AB JP 05271088 A UPAB: 19961021

Tissue lesion improving compsns. contain a superoxide dismutase (SOD) like substance, a phenolic cpd., partic. one or more of guaiacol, phenol, eugenol and phenylethanol, and a sugar cpd. such as a glycoprotein and glycoflavonoid, partic. one or more asparatin, orientin (lutexin), cisorientin (lutonaretin), isoquercitin, rutin and quercetin.

The compsns. contain 10,000-100,000 U/L of SOD-like substance, 0.1-10 mg/L of sugar cpd., 0.5-10 mg/ml of proteinaceous substances, 0.1-5 mg/L of phenolic cpd., and may further contain antioxidants (e.g. vitamin C and E, uric acid, glutathione and beta-carotene) and 10-500 mg/L of minerals (e.g. P, Fe, Ca, Na, K, Mg, Cu, Zn, Mn and Se).

USE/ADVANTAGE - Treatment of skin diseases (e.g. warts, acne and dermatitis) and allergic diseases. The compsns. are administered at 2-40 mg/kg/day.

In an example, a soln. contg. 0.1-10 mg/L of glycoflavonoid, 0.5-10 mg/ml of protein and 0.1-5 mg/L of phenolic cpds. was adjusted to give 20,000 U/g of SOD-like and antioxidant activity and diluted to contain 0.1 mg/ml. The resultant soln. was orally administered at 300-500 ml/day for two weeks to 10 patients with diseases related to free radicals, 20 patients with bacterial and viral diseases and 18 patients with intractable skin diseases, respectively, and effective in eight, 15 and 13 patients, respectively, and ineffective in two, five and five patients,

respectively.

Dwg.0/0

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-B02C2; B04-B04A6; B06-A01; B10-E02; B10-E04A; B12-A07; B12-D02;  
D08-B09A

L144 ANSWER 23 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1992-327504 [40] WPIDS

DNC C1992-145521

TI Antiviral agent contg. quercetin or isoquercetin - derived from Houlttuynia cordata Thunberg, Gossypium, etc., for treating hepatitis B infections.

DC B02

PA (FJRE) FUJI REBIO KK

CYC 1

PI JP 04234320 A 19920824 (199240)\* 3p A61K031-35

ADT JP 04234320 A JP 1990-415483 19901228

PRAI JP 1990-415483 19901228

IC ICM A61K031-35

ICS A61K031-70

ICA C07D311-30; C07H017-07

AB JP 04234320 A UPAB: 19931115

Anti-HBV agent contains a cpd. of formula (I) as an active ingredient.  
(where x = H or glucose).

Pref. quercetin (X = H) or **isoquercitrin** (X = glucose) is  
obtained from Houlttuynia cordata THUNBERG, Gossypium, etc.

USE/ADVANTAGE - Cpd. (I) is useful for the treatment of hepatitis B  
and is readily available. Daily dose for an adult is 0.01-10g orally or  
0.1-1g parenterally.

In an example, HBV producing hepatocyte HB-611 was inoculated in  
Dulbecco modified Eagle medium (contg. 10% fetal bovine serum, G418 200  
micro/ml, penicillin 100 micro/ml and streptomycin 100 micro/ml) at 5 x 10  
power 4 cells/well and incubated at 37 deg. C under 5% CO2. After 3 days,  
(I) was added to the wells, incubated for 15 days and centrifuged. HBs in  
the supernatant was determined by ELISA. The cells were treated with  
pronase, then with phenol chloroform and pptd. with EtOH to recover DNA.  
DNA was analysed by Southern blot technique.

0/0

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: B06-A01; B12-A06; B12-G02

L144 ANSWER 24 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1992-157345 [19] WPIDS

TI New prevention of browning of ascorbic acid - by blending with flavonoid  
glucoside(s).

DC B03 D13 D16 E13

PA (SANE) SAN-EI CHEM IND LTD

CYC 1

PI JP 04099771 A 19920331 (199219)\* 4p

JP 3016835 B2 20000306 (200016) 4p C07D307-62

ADT JP 04099771 A JP 1990-217895 19900819; JP 3016835 B2 JP 1990-217895  
19900819

FDT JP 3016835 B2 Previous Publ. JP 04099771

PRAI JP 1990-217895 19900819

IC A61K031-37; A61K047-26; C07D307-62

ICM C07D307-62

ICS A23L003-3544; A61K031-37; A61K031-375; A61K047-26

AB JP 04099771 A UPAB: 19931006

Method in which the acid and/or its deriv(s). are blended with a flavonoid  
glucoside(s).

The glucoside is pref. one or a mixt. of rutine, quercitrin,  
isoquercetine, peltatoside and hyperoside. Alternatively, the glucoside is  
pref. a water-soluble flavonoid glucoside(s) prepd. by making a

sugar-transferring enzyme act on one of a mixt. of rutine, quercitrin, isoquercetine, peltatoside and hyperoside in the presence of a lactose or galactoligosaccharide and/or starch. The sugar-transferring enzyme is pref. one or a mixt. of enzymes having an action of transferring the galactose residue and those having an action of transferring the glucose residue.

USE/ADVANTAGE - Method prevents the browning of the acid

O/O

FS CPI  
FA AB; DCN  
MC CPI: B03-F; B04-A07E; B12-M06; D03-H01P; D05-A02B; E06-A01; E07-A02B

L144 ANSWER 25 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
AN 1992-157315 [19] WPIDS  
TI Browning-preventing agent - comprises ascorbic acid and its derivs. and flavonoid glucoside(s).  
DC B03 D13 D16 E13  
PA (SANE) SAN-EI CHEM IND LTD  
CYC 1  
PI JP 04099730 A 19920331 (199219)\* 4p  
JP 2997303 B2 20000111 (200007) 3p A23L003-3544  
ADT JP 04099730 A JP 1990-217894 19900819; JP 2997303 B2 JP 1990-217894 19900819  
FDT JP 2997303 B2 Previous Publ. JP 04099730  
PRAI JP 1990-217894 19900819  
IC A23B007-15; A23L001-03; A61K047-22  
ICM A23L003-3544  
ICS A23B007-15; A23L001-03; A23L001-272; A61K047-22; A61K047-26  
AB JP 04099730 A UPAB: 19931006  
Agent contains ascorbic acid and/or its deriv(s). and a flavonoid glucoside(s).

The flavonoid glucoside is pref. one or a mixt. of rutine, quercitrin, isoquercetine, peltatoside and hyperoside. Alternatively, the flavonoid is pref. a water-soluble glucoside(s) prepd. by making a sugar-transferring enzyme(s) act on one or a mixt. of rutine, quercitrine, isoquercetine, peltatoside and hyperoside in the presence of lactose or galactoligosaccharide and/or starch. The enzyme is pref. one or a mixt. of those having an action of transferring the galactose residue and those having an action of transferring the glucose residue.

The concn. of the acid and/or its derivs. is usually 0.1-30 wt.%; and the concn. of the glucosides 0.05-30 wt.%. Available ascorbic derivs. include the salts, esters with fatty acids and ethers with sugars. Available agent forms include powder, granule, liq., emulsion and paste. Stabilisers for the acid are opt. added, including metaphosphoric, di- and tricarboxylic, EDTA and phytic acids.

USE/ADVANTAGE - The agent has a high preventing effect

O/O

FS CPI  
FA AB; DCN  
MC CPI: B03-F; B04-A07E; B12-M06; D03-H01P; D05-A02B; E06-A01; E07-A02B

L144 ANSWER 26 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
AN 1992-120693 [15] WPIDS  
DNC C1992-056444  
TI Prepn. of easily water soluble flavonol glycoside - from quercetin glycoside and starch, lactose or galacto-oligosaccharide using beta-galactosidase.  
DC B02 D16 E13  
PA (SANE) SAN-EI CHEM IND LTD  
CYC 1  
PI JP 04066098 A 19920302 (199215)\* 7p  
ADT JP 04066098 A JP 1990-179838 19900706  
PRAI JP 1990-179838 19900706  
IC C07H017-07; C12P019-60  
AB JP 04066098 A UPAB: 19931006  
Glucose residue and galactose residue existing easily water soluble

flavonol glycoside is prepd. by reacting galactose residue transferring enzyme and glucose residue transferring enzyme to quercetin glycoside under coexistence of lactose of galactooligosaccharide and starch, to transfer galactose residue and glucose residue to quercetin glycoside, where quercetin glycoside is pref. rutin, isoquercetin, and pertatoside.

Pref. quercetin is rutin, isoquercetin, pertatoside.

USE/ADVANTAGE - Mixt. of flavonoid glycoside obtd. has extremely high water solubility; colour (tone), antioxidant property, UV absorbability are effectively exhibited in aq. media. In an example; To 0.1M phosphate buffer (pH 7.0; 100 ml), lactose (200 g) and dextrin (60 g) were added and dissolved under warming at 60 deg.C. To this, rutin (20 g) contg. DMSO soln. (100 ml) and beta-galactosidase (enzymatic titre 20,000 units; 1 g) and CGTase (enzymatic titre 500 units; 1 g) were added, and stirred at 60 deg. C for 4 hours. Next, mixt. was diluted with H<sub>2</sub>O (1 l), and flowed to porous polymer (700 ml) packed column in 1 hour; next, ion exchanged water (5 l) was flowed in 1.5 hours, next, 40 v/v MeOH (2 l) was flowed in 1 hour to elute adsorbed substance. MeOH soln., was conc. Yellow solid (25 g) was obtd..

FS CPI  
FA AB; DCN  
MC CPI: B04-A07E; B06-A01; D05-C08; E06-A01

L144 ANSWER 27 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
AN 1991-284727 [39] WPIDS  
DNC C1991-123285  
TI Testosterone-5 (alpha)-reductase inhibitor - useful as a hair cosmetic and skin drug.  
DC B05 D21 E19  
PA (SHIS) SHISEIDO CO LTD  
CYC 1  
PI JP 03188019 A 19910816 (199139)\* 6p  
JP 2940964 B2 19990825 (199940) 6p A61K031-365  
ADT JP 03188019 A JP 1989-325613 19891215; JP 2940964 B2 JP 1989-325613 19891215  
FDT JP 2940964 B2 Previous Publ. JP 03188019  
PRAI JP 1989-325613 19891215  
IC A61K007-00; A61K031-11  
ICM A61K031-365  
ICS A61K007-00; A61K007-06; A61K031-00; A61K031-05; A61K031-11; A61K031-40; A61K031-70  
AB JP 03188019 A UPAB: 19930928  
Testosterone-5alpha-reductase inhibitor contains at least one of the cpd. selected from the gp. consisting of phytoanthin, rubixanthin, lycopene, **isoquercitrin**, 28-escarbic acid glycoside, tolmetin, aldonic acid, phenyl acetaldehyde, indol-3-acetic acid, rugosin (I) A, (I) B, (I) C, (I) D, (I) E, (I) F, (I) G, praecoxin A, leucoanthocyanin, a hair cosmetic contg. at least one selected from the group consisting of the above cpd., a skin drug contg. at least one selected from the gp. consisting of the above cpd.

USE/ADVANTAGE - Inhibitor is useful as a hair cosmetic and skin drug.

In an example, a compsn. comprising 0.1 wt.% escarbic acid glycoside, 0.1 wt.% 28-tolmetin glycoside, 0.1 wt.% 28-aldonic acid glycoside, 0.3 wt.% indol-3-acetic acid, 0.1 wt.% plaecoxin, 0.3% of a surface active agent and balance of 75% ethanol gives an area of hair regeneration of 80.2%, compared to 8.0% for the control (75% ethanol only). @ (6pp Dwg.No.0/0)

FS CPI  
FA AB; DCN  
MC CPI: B03-A; B04-A06; B04-A07E; B06-A01; B06-D01; B07-D02; B10-A07; B10-D01; B12-A07; B12-G01B1; B12-L05; D08-B03; D08-B09A; E06-A01; E06-D01; E07-A02H; E07-D02; E10-D01D; E10-E04M1; E10-J02C4

L144 ANSWER 28 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
AN 1991-284724 [39] WPIDS  
DNC C1991-123282  
TI Hair tonic material having high effect and safety - contg. anionic and

nitrogen-contg. surfactants, with indole-acetic acid, phenyl aceto-aldehyde, etc..

DC D21 E19

PA (SHIS) SHISEIDO CO LTD

CYC 1

PI JP 03188015 A 19910816 (199139)\* 12p

JP 2871764 B2 19990317 (199916) 10p A61K007-06

ADT JP 03188015 A JP 1989-325614 19891215; JP 2871764 B2 JP 1989-325614 19891215

FDT JP 2871764 B2 Previous Publ. JP 03188015

PRAI JP 1989-325614 19891215

IC A61K007-06

ICM A61K007-06

ICS A61K007-00

ICA A61K007-075; A61K007-08; A61K007-11

AB JP 03188015 A UPAB: 19930928

The hair tonic material contains one or a mixt. of phytochisantin, rubichisantin, lycopene, **isoquercitrine**, 28-escabic acid glucoside, toluementic acid, arjunic acid (Sic), phenylacetoaldehyde, indole-3-acetic acid, rugosins A, B, C, D, E, F, and G, plaecoxyn A (Sic) and leucoanthocyanin, one or a mixt. of anionic surfactants, and one or a mixt. of nitrogen-contg. surfactants other than anionic ones.

USE - For providing a tonic material having a notably high tonic effect and high safety.

O/O

FS CPI

FA AB; DCN

MC CPI: D08-B03; E06-A01; E06-D01; E09-B; E10-D01D; E10-E04M1; E10-J02A; E10-J02C4

L144 ANSWER 29 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1990-302405 [40] WPIDS

DNC C1990-130673

TI Anthocyanin stabilisation - using flavonol, water-soluble antioxidant and phosphate, for food, etc..

DC D13 E24

PA (SANE) SAN-EI CHEM IND LTD

CYC 1

PI JP 02214780 A 19900827 (199040)\*

ADT JP 02214780 A JP 1989-34735 19890214

PRAI JP 1989-34735 19890214

IC A23L001-27; C09B061-00; C09K015-06

AB JP 02214780 A UPAB: 19930928

Anthocyanin is stabilised by flavonol, water-soluble antioxidant and phosphate. Pref. flavonol is one or their mixt. of morin, rutin, **isoquercitrin**, quercitrin, quercetin, gossypetin, gossypetrin, gossypine and herbacetin. Flavonol glucoside is reacted with partial hydrolase to obtain flavonol O-monoglucoside and starch, which are reacted with glucosidase and/or transglucosidase to obtain one or mixt. of flavonoid glucoside, which is used as flavonol. Flavonol glucoside and starch are reacted with glucosidase and/or transglucosidase. Equimolar or more of glucose residues are transferred to give one or mixt. of flavonoid glucoside as flavonol. The antioxidant is one or mixt. of ascorbic acid, sodium ascorbate, erysorbic acid, sodium erysorbate, ethylenediaminetetraacetic acid cesium- or ethylenediaminetetraacetic acid-disodium. Phosphate is sodium- or potassium-metaphosphate, potassium- or sodium-polyphosphate, sodium pyro, potassium pyro or sodium monophosphate.

USE/ADVANTAGE - Method is used to give stable quality of foods e.g. pref. food, drinks and processed food contg. natural anthocyanin pigment which are labile against heat, light and oxygen. It protects against fading and discoloration. It protects anthocyanin pigment against fading and discoloration.

O/O

FS CPI

FA AB

MC CPI: D03-H01E; D03-H01Q; E06-A01; E07-A02B; E10-B01C; E25-E02; E31-K06

L144 ANSWER 30 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1988-341542 [48] WPIDS  
 DNN N1988-258932 DNC C1988-151036  
 TI Diagnostic agents for polymorphonuclear leukocyte function - comprising flavonoid or its glycoside as active ingredient.  
 DC B02 B04 S03  
 PA (COSM-N) COSMO KAIHATSU KK  
 CYC 1  
 PI JP 63253254 A 19881020 (198848)\* 3p  
 JP 07037980 B2 19950426 (199521) 3p G01N033-50  
 ADT JP 63253254 A JP 1987-87181 19870410; JP 07037980 B2 JP 1987-87181 19870410  
 FDT JP 07037980 B2 Based on JP 63253254  
 PRAI JP 1987-87181 19870410  
 IC C07D311-30; G01N033-50  
 AB JP 63253254 A UPAB: 19930923  
 A diagnostic agent comprises a flavonoid (I) or its glycoside as an active ingredient. (R1-R9 each = H, hydroxy or methoxy).  
 Examples of (I) and their glycosides: typical flavonoids (I) include myricetin, morin, quercetin, kaempferol, kaempferid, fisetin, datiscetin, robinetin, quercetagenin, rannacin, hibiscetin, pratol, apigenin, acacetin, luteolin, etc. Typical flavonoid glycosides includes **isoquercitrin**, rutin, myricitrin, narcissin, toringin, cosmosiin, diosmin, etc.  
 USE - Diagnosis of function of polymorphonuclear leukocyte is useful in examination of immune function or autoimmune disease.  
 0/0  
 FS CPI EPI  
 FA AB; GI; DCN  
 MC CPI: B04-B04D1; B06-A01; B06-A03; B06-E04; B11-C07B1; B12-K04A  
 EPI: S03-E09E; S03-E14H

L144 ANSWER 31 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD  
 AN 1986-335081 [51] WPIDS  
 DNC C1986-145267  
 TI Preparation of drug from medicinal plants - is effective for gastric cancer and ulcer.  
 DC B04  
 PA (SAKU-I) SAKURAI K  
 CYC 1  
 PI JP 61249929 A 19861107 (198651)\* 2p  
 ADT JP 61249929 A JP 1985-89800 19850425  
 PRAI JP 1985-89800 19850425  
 IC A61K035-78  
 AB JP 61249929 A UPAB: 19930922  
 Raw chickweed (*Stellaria media*), a bad-smelling perennial plant (*Houttuynia cordata*) and a creeping saxifrage (*Saxifrage stolonifera*) are crushed into a mixt., which is formed into liq. drug, granule or powdery drug.  
 (1) Chickweed has been used for prevention of pyorrhea alveolaris and bleeding from teeth ridge. (2) The bad-smelling plant contains quercitrin, **isoquercitrin**, decanoylacetaldehyde and laurylaldehyde, has urinate and anti-poison working effective for hypertension, piles and constipation. (3) The creeping saxifrage contains potassium nitrate, potassium chloride, etc. and has urinate and anti-poison working effective for inflammation of the middle ear, swelling, burn, a cold, or dropsy.  
 USE/ADVANTAGE - Gastric cancer and ulcer.  
 In an example, fresh chickweed (80g), fresh bad-smelling perennial plant (80g) and creeping saxifrage (80g) were washed, crushed in a mixer to form a mixt., to which water (400-500cc) and an approp. amt. of honey were added. 80 g of the mixt. was taken 3 times a day for 1-2 months. Gastric cancer and ulcer were improved. The liq. mixt. was dried and form into granule or powder together with a flavour.

0/0  
FS CPI  
FA AB  
MC CPI: B04-A07F2; B06-A01; B10-D01; B12-D07; B12-D08; B12-E08; B12-F05;  
B12-G03; B12-G07; B12-J05; B12-J06; B12-J07; B12-L03

L144 ANSWER 32 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1979-05998B [03] WPIDS

TI Suppressing herpes simplex virus - by topical admin. of an extract of mountain ash berries.

DC B04

PA (BEAN-I) BEAN S

CYC 1

PI US 4132782 A 19790102 (197903)\*

PRAI US 1977-798585 19770519

IC A61K035-78

AB US 4132782 A UPAB: 19930901

Effective treatment is obtd., esp. when applied to the lips of the mouth to give rapid clearance of lesions. The compsn. pref. contains 0.1-20% extract, esp. 1% berry juice. The extract may be obtd. by using e.g. i-PROH or aq. i-PROH for extraction. A pref. compsn. is an ointment contg. 1% berry juice. Extraction is at 20-100 degrees C for 10-45 days, pref. with 1-5 times the volume of berries, of 70-95% aq. i-PROH. The extract is filtered and may be concd. Juice from the berries may be used instead of whole berries.

A topical ointment may contain 1-5% extract, which may also have been evapd. in vacuo or freeze dried. The extract has been found to contain hydroxycinnamic acids, anthocyanin, leucoanthocyanin, various flavonals, beta-carotene and its monoepoxide, cryptoxanthin, violaxanthin, gallic acid, naringin, meratin, asozane, isoquercetin and **isoquercitrin**

FS CPI  
FA AB  
MC CPI: B04-A07F; B12-A06

L144 ANSWER 33 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1978-43178A [24] WPIDS

TI Orally administered prepn. for treating athletes foot - contains softened or dried powder extract of Houttuynia cordata.

DC B04 C03

PA (INAG-I) INAGAKI G

CYC 1

PI JP 53050313 A 19780508 (197824)\*

PRAI JP 1976-122925 19761015

IC A61K035-78

AB JP 53050313 A UPAB: 19930901

An orally administrable prepn. which comprises softening extract or dry extract (powder) of Houttuynia cordata is new. Houttuynia cordata contains decanoylacetaldehyde which has an unusual smell and shows anti-fungal and anti-bacterial activity. The leaves contain quercitrin which has a potent diuretic action, and minerals (HCl and K<sub>2</sub>SO<sub>4</sub>). Additionally, quercitrin and **isoquercitrin** exhibit an action strengthening the blood vessel. The invention was made on these facts.

Prepn. is effective against incurable athlete's foot. Virulent athlete's foot not cured by a dermatologist was completely healed by oral administration of extract of Houttuynia cordata over 2 months.

FS CPI  
FA AB  
MC CPI: B04-A07F; B05-A01A; B05-C07; B06-A01; B10-D01; B12-A01; B12-A02;  
B12-A07; B12-E01; B12-G03; C04-A07F; C05-A01A; C05-C07; C06-A01;  
C10-D01; C12-A01; C12-A02; C12-A07; C12-E01; C12-G03

L144 ANSWER 34 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1967-09394G [00] WPIDS

TI Feedstuff for silkworms contng polyhydroxycarboxylic.

DC C00

PA (HAMY) HAMAMURA Y

CYC 1

PI US 3328170 A (196800)\*

PRAI JP 1963-11944 19630306

AB US 3328170 A UPAB: 19930831

A feedstuff for silkworms contng. biting factor (BF) and swallowing factor (SF), together with a polyhydroxycarboxylic acid (I) or a salt or ester of I. An attracting factor (AF) is opt. present.

Artificial feedstuff for silkworms, which normally only eat mulberry leaves. I acts as a feed-intake promoter.

AF is a terpene, e.g. citral, linalyl acetate, linalol, and terpinyl acetate. AF may be omitted if the silkworms are placed on the feed. BF is beta-sitosterol with or without flavonoids such as quercetin, morin, rutin, and **isoquercitrin**. SF is cellulose powder. I is e.g. an aromatic polyhydroxy acid such as chlorogenic acid, caffeic acid, gallic acid, gentisic acid, homogentisic acid, resorcylic acid and quinic acid.

FS CPI

FA AB

MC CPI: C10-A07; C10-C03; C10-C04; C10-E02; C10-E04; C12-L09